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**Cover:** R. D. Wilson's cover art this month is the main street of Canada's potash boom town — Esterhazy, Saskatchewan.

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# the university at the service of society



It is fashionable today to refer to changes in education as "revolutionary". The reorganization of school districts, the introduction of the non-graded classroom and the use of computer-assisted learning could be referred to as revolutionary changes.

Rather than a "revolutionary" change in adult education at McGill University, an evolutionary change is taking place that will affect all of you in Quebec and many in Canada and foreign countries. It is really an evolutionary change since it is built on a basic foundation established by the university over the past thirty years.

The idea that academic institutions should reach out to serve the workaday needs of a developing society is not new. But it is only in recent years that public service by universities has become a partial reality. For many years this university has been involved in various forms of public service through such channels as Farm Radio Forum and the Management Institutes.

This month the university is giving formal recognition to these extension activities and is in fact providing a mandate for public service through the establishment of the McGill Centre for Continuing Education. This centre will be an interdisciplinary coordinating unit with the key objective of making available to people, wherever they live, the resources of the university.

This involves the appointment of several associate directors of continuing education from each of the faculties and schools most directly concerned. It also involves the ap-

pointment of a director of community programs and two associates whose responsibility will be to extend the resources of the campus to individuals and groups in off-campus locations.

At Macdonald College, this new organizational structure will give the scope and opportunity to develop new and additional programs in line with the service philosophy. In this case, the extension-service activities as related to agriculture, home economics and education are serving as the model for a university extension program which involves staff, students and the total community.

In view of this reorganization, several new appointments are being made. Announcement of these and of programs which will relate to the rural community will be published in the next issue of the Journal.

As an article by the Carnegie Foundation for the Advancement of Teaching recently stated,

"In practical terms, then, every university must realize that it can no longer adopt the simple course of rejecting public service. Interdependence between the university and society has become too great for that. The university MUST have society's support. Society MUST have access to the university's resources. Were the university to turn its back on society's needs, it would be tantamount to self-destruction."

The same applies to McGill. With these "evolutionary" changes, it is hoped that the strong university-community link can be strengthened even more. Watch!

*The Editor*



# potash

*Dr. K.M. Pretty, Vice-President  
Gaetan A. Lussier, Agronomist,  
American Potash Institute*

Potash is one of the three basic ingredients in mixed chemical fertilizers, the others being nitrogen and phosphorous. It is also one of 14 elements known to be essential for all plant life. Similarly, it is an essential element for all animal life. It is the purpose of this paper to describe briefly the importance of potassium in plant and animal life, as well as to point out the importance of the potash industry to Canada's industrial development and growth.

Potash is a generic term for soluble salts of the element potassium. Its name is derived from the "Pot Ashes" which were originally obtained by evaporating, in iron pots, a solution of wood ashes. In the agricultural context, it is most frequently used as a means of describing the content of potassium oxide ( $K_2O$ ) in various fertilizer materials. The potassium content of minerals is stated in terms  $K_2O$  because it was originally thought that potassium was effective as fertilizer only in this form.

## history of potash use

Potash was first used in the production of soaps prior to 1600. The first crude potash was made from wood ashes by Virginian colonists. Exports to Europe, which began in 1625 continued to grow until 1810. With the enforcement of embargoes prior to the Civil War, Montreal emerged as a leading port for potash export. However, with the development of a new process for production from potash-bearing minerals in Europe, this industry rapidly declined.

The importance of potassium for plant life was first recognized by the German Chemist, Von Liebig. He has been described as the "Father of the Potash Industry". Liebig's discoveries on the necessity of potassium for plant growth came at a fortuitous time. The potash deposits in Germany were being explored but progress was slow in converting these early positive results into farmer usage.

Knowledge of a need for potassium in animal tissue is more recent. In 1883, Ringer found that it regulated normal heart beat. Since then, hundreds of experiments have been conducted to show the evidence of a need in animal life.

Up to the outbreak of World War I, the German potash industry was the sole source of potash for North America. In 1925, while exploring for oil near Carlsbad in New Mexico, potash salts were discovered and production began in 1931.

The first evidence of the potash deposits which lie beneath the Saskatchewan plains was recognized in

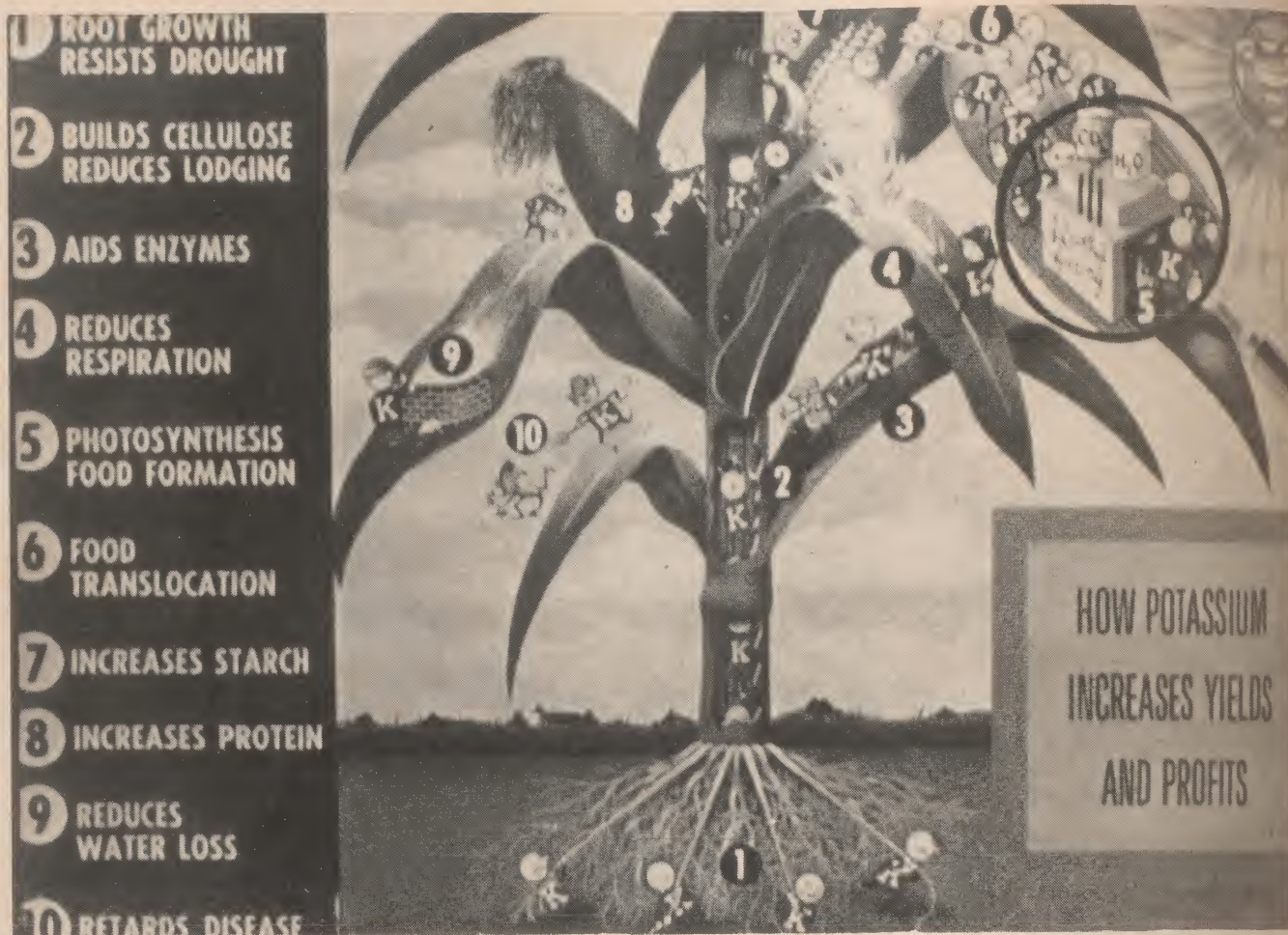
1943. Many problems have been encountered in exploiting these deposits, because most of them lie at depths up to 3500 feet or more, under an unconsolidated section of sand, clay and silt bearing water, called the Blainmore Formation. Finally, to succeed in sinking a shaft, companies were obliged to freeze the ground. Nine companies are either producing potash or developing facilities. Several other companies are engaged in exploration programs.

World reserves of recoverable potash have been estimated at about 120,000 million short tons with the Saskatchewan deposits accounting for about half of the total. For this reason, it has been predicted by economists that within a few years potash will stand second only to wheat in the province in terms of product value. The export of potash will be a substantial contributor to Canada's balance of trade.

The principal users of potash as fertilizer at the present time are Europe, the United States and Japan. Demand in these countries increased rapidly during recent years. However, any estimates of future fertilizer demand must be considered in the context of the world food and population balance. Developing countries in Asia, Africa and Latin America can be expected to use increasing amounts of potash.







## potash in crop production

Without potassium there is no plant life. When available in sufficient quantities, plants absorb it easily. Unlike most other essential nutrients, potassium does not become a part of the chemical structure of plants. However, research has uncovered several important functions of this element.

### 1. *increases root growth and improves drought resistance*

Plants contact a relatively small proportion of the soil volume so that any practices which will increase the amount of root growth and the depth of penetration will improve the absorption of nutrients and soil moisture.

### 2. *builds cellulose and reduces dodging*

Cellulose is the structural material which gives strength to stem and

stalks. Many experiments have shown that a lack of potassium results in plants with weaker stems which are more susceptible to breakage.

### 3. *aids enzyme actions*

Enzymes are organic compounds which catalyse or speed up many reactions in plants. Potassium serves as an activator of "spark plug" in initiating enzymatic reactions.

### 4. *reduces respiration, preventing energy losses*

A plant uses energy to perform its normal growth processes. Energy is released during the respiration process. Potassium regulates respiration rate, thereby contributing to efficiency.

### 5. *aids in photosynthesis and food formation*

Photosynthesis is the process whereby carbon dioxide from the air along

with water and sunlight, are combined in the presence of chlorophyll (the green pigment in leaves). Potassium not only increases the amount of leaf area available but also maintains chlorophyll content. When in short supply leaves are small and may turn yellow or brown. Under these circumstances, photosynthesis slows down.

### 6. *gives grain high in starch*

Poorly filled kernels of cereal grains and corn are often due to a low level of starch storage. If the plant dies prematurely as a result of low levels of available potassium, the immature kernel becomes light and chaffy due to a failure to fill with starch.

### 7. *increases protein content of plants*

With adequate nitrogen and a low level of potassium, protein formation is retarded.



## 8. maintains turgor, reduces water loss and wilting

Sufficient water must be available inside the plant to insure maximum operation of the manufacturing and transport processes. Research has shown that low potassium results in stomata which open more widely, thereby contributing to increased water loss and greater susceptibility to wilting.

## 9. helps retard diseases

A healthy, vigorous plant is less susceptible to disease infestations. Experiments with many crops of economic importance show the importance of adequate potassium in reducing the incidence of disease.

The cumulative effect of these various functions of potassium is to improve yield, quality and persistence. However it must be recognized that balanced nutrition is a requisite for successful crop production. A basic principle in the fertilization of crops must be to apply sufficient amounts of all elements to insure maximum economical yields.

Crops vary in their requirements for potassium depending on plant species and yield objectives. Similarly, soils vary in their ability to supply potash from native soil supplies. Judicious fertilization requires that the needs of the crops and the ability of the soil to supply nutrients be considered. It is for this reason that soil testing, plant analysis and a knowledge of requirements are essential in making fertilizer recommendations to the farmer.

Table 1 indicates the amounts of potassium required by several common crops when high yields are an objective.

## potassium in the soil

Soils vary greatly in their total potassium content, from as low as a few hundreds pounds per acre in the plow layer on coarse, sandy soils to as much as 20 tons or more in many clay soils.

These figures, when compared with the annual crop requirements in Table 1, may suggest that most soils contain sufficient potassium for plant growth. However, much of the total potassium is in forms not available to plants.

Available potassium may vary from a few pounds per acre to more than 1,000 pounds in some soils. As crops yields increase, and soils become depleted of available potassium, larger amounts must be applied to adequately satisfy plant demands.

## potassium in animal and human nutrition

Potassium is concentrated in such tissues and body organs as muscle, red blood cells, kidney, heart, bone, liver, pancreas and brain.

Fresh fruits, vegetables and meat ordinarily provide sufficient potassium for man. Unfortunately, much of this potassium is lost in the cooking process.

For animals, grasses and legumes, especially if grown on well fertilized soils, harvested at early physiological growth stage, and properly stored, are excellent sources of potassium.

In both cases it is logical to assume that deficiencies of potassium are unlikely to occur if a balanced diet or ration is provided.

## mineral sources of potash fertilizer

Almost 95 per cent of all the potash used in the world is applied as a fertilizer for the improvement of crop yields and quality.

The other 5 per cent used is for industrial uses of potassium: soaps and detergents, glass and ceramics, textiles and dyes, chemicals and drugs.

Muriate of potash or potassium chloride (60-62 per cent  $K_2O$ ) is the most important and least expensive fertilizer source.

Crops such as tobacco, and to a lesser extent, potatoes, have a very low chloride tolerance in view of its deleterious effects on quality. Con-

sequently, potassium sulfate (50-53 per cent  $K_2O$ ) is a desirable source for such crops. On soils low in available magnesium, a combined sulfate of potash magnesia (22 per cent  $K_2O$ , 18 per cent  $MgO$ ), can be an effective source of both nutrients. More recently, potassium nitrate (44 per cent  $K_2O$ , 13 per cent  $N$ ) has been introduced on the market. These are the major sources of potassium for agricultural purposes.

## conclusion

Potassium is an essential element for all plant and animal life. Even though many soils contain sufficient potassium to theoretically meet crop needs for an indefinite period, the rate of release is too slow to satisfy the demands of rapidly growing, high yielding.

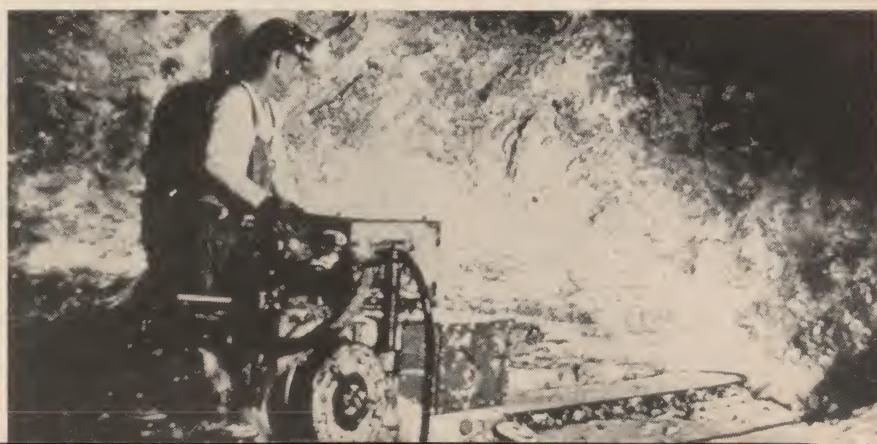
The figures for potash consumption in Canada, Ontario and Quebec for 1960 and 1966 in Table 2 indicate a total increase of 67 per cent in the six year interval. Average application rates are 5 pounds per harvested acre in Canada, 23 pounds in Ontario and 15 pounds in Quebec. The low national value is due to the relatively high levels of available potassium in the soils of Western Canada.

Consumption values in Ontario and Quebec are by no means adequate. A comparison of these average rates of application with the amounts required for good crop yields indicates that soils are being mined of available potassium.

Table 1	Potassium Removal by Several Crops	
Crops	Yields/Acre	$K_2O$ Removed (lbs/acre)
Silage Corn	30 Tons	245
Grain Corn	150 bushels	45
Barley	100 bushels	150
Alfalfa	6 Tons	270

Table 2.	Potash Consumption in short tons for 1960 and 1966 for Canada, Ontario and Quebec.		
Year	Canada	Ontario	Quebec
	(62.44)	(7.99)	(5.21)
1960	89,275	50,761	19,658
1966	150,000	90,000	32,400

Figures in brackets are millions of harvested acres.





at Macdonald College . . .

## research in corn production

*Corn growers in Quebec are asking, "How early and how thick should I plant my grain corn?" From his experimental plots, Dr. R. I. Brawn provides some of the answers.*

Although Quebec must still be considered to be on the northern margin of the potential corn growing area in North America, three areas are showing considerable promise. Southwest of Montreal in the Howick-Ormstown-Huntingdon area, east of Montreal around St. Hyacinthe and north-east of Montreal in l'Assomption County, the number of acres of grain corn and yields have both been climbing. But the need for a Quebec-based corn philosophy is apparent.

Grain corn production in Quebec has been considered a marginal enterprise in the past. The older hybrids and open pollinated varieties were ill adapted to the region. Traditionally, corn planting was delayed until the other spring work was completed in the belief that the corn would benefit from the warmer soil and still have time to grow and mature. Scant attention was given to achieving a suitable plant density; corn was planted as custom dictated; little or no fertilizer was used. It is no wonder that little success was achieved in producing a satisfactory crop of mature grain. A corn philosophy was definitely lacking and corn research was impeded by this indifference.

A continuing series of experiments is being conducted by Macdonald

College to develop a corn philosophy especially adapted to the needs of this province. One such study, supported by a research grant from The House of Seagram, was conducted in 1965 and 1966 by the Department of Agronomy to supply information on the effect of date of planting and rate of planting on yield and maturity of grain as a basis for formulating recommendations to Quebec farmers.

The newer corn hybrids, which are early enough to mature in southwestern Quebec, are relatively small and low yielding on a per plant basis, suggesting that maximum production would be achieved by a somewhat higher plant density than used in the longer seasoned corn belt of Ontario and the United States. Since these hybrids were mostly bred in Canada, they could be expected to tolerate low temperatures better than the Corn Belt hybrids, suggesting that they could be planted earlier without ill effect on the seedlings and perhaps with beneficial effect on the ultimate maturity of the crop.

The experiments were designed to answer practical problems and to be of immediate value to Quebec farmers. Specifically, the trials were conducted to answer these problems:

1. What is the optimum plant population with the present Quebec-adapted



*An outdoor laboratory. Dr. R. Brawn, corn breeder and geneticist, goes over the results of his corn trials with a group of post-graduate students at Macdonald College.*



Table 1 Summary of rate-of-seeding trials conducted in 1965 and 1966 at St. Hyacinthe, l'Assomption and Ormstown using three hybrids.

Plants per acre	Row width (inches)	Spacing in rows (inches)	% Erect	No. days to 50% tassel	Height (inches)		% moisture at harvest	Yield shelled corn at 15% moisture Bus. per acre
					Plant	Ears		
14520	36	12	97	73	78	33	44.0	82
17424	36	10	96	73	78	32	44.6	90
17424	30	12	96	73	77	33	44.4	92
19008	30	11	96	73	78	33	44.9	98
20908	30	10	96	73	78	32	45.3	98
21780	36	8	96	73	77	32	46.1	93
21780	24	12	96	73	78	31	46.1	100
23232	30	9	95	74	78	33	45.8	104
26136	30	8	95	73	78	32	46.2	104
26136	24	10	95	73	76	32	46.6	105
29870	30	7	95	73	79	33	46.6	107
32670	24	8	94	73	78	32	48.8	109
Mean			96				45.7	98

grain hybrids? Is this population higher than that reported from the Corn Belt where larger hybrids are grown?

2. Is overplanting serious, or is there a range of overplanting where yield does not decrease with increased population?

3. Using row widths easily attainable by farmers, what is the best spatial distribution within a given population?

4. Are there likely to be differences between hybrids in their productivity at high plant populations or following early planting?

5. When is the best time to plant corn in the spring to get the ripest grain together with the highest yield?

Test sites were established in the three corn growing areas of the province. The Canada Department of Agriculture supplied land on the Experimental Farm at l'Assomption. The Quebec Department of Agriculture provided land at the Institute of Agricultural Technology at St. Hyacinthe. Mr. Edwin Brown of Howick provided land one mile south of Ormstown in 1965 and one mile southwest of Howick in 1966. Identical trials were conducted at the three locations in 1965 and 1966.

Three different hybrids were in-

cluded in both the rate-of-planting and date-of-planting trials. These were DeKalb 29, Warwick 263, and Pride 5. They were selected because they are known to be different in size and rate of maturity and it was shown in both the date- and rate-of-planting trials that there was a real difference between these hybrids in their response to early planting and thick planting.

### the spacing experiments

Plant density studies were conducted in three row widths: 24, 30 and 36 inches; and three spacings: 8, 10 and 12 inches within the rows in the 24- and 36-inch widths, and at six spacings: 7, 8, 9, 10, 11 and 12 inches in the 30-inch rows. This produced populations ranging from 14,560 to 32,670 plants per acre. The various populations and corresponding row widths and spacings in the rows is given in the first three columns of Table 1.

The answers to the first three questions posed above are indicated in Table 1 which is the summary of the three hybrids planted at three locations in two years. It can be seen that as the population increases the percentage moisture at harvest in the

ear also increases. Yield rises sharply with increasing number of plants per acre at the lower populations but continues to rise less rapidly with increasing plant density at the higher populations. In fact, yield continued to increase in these studies with each increase in the number of plants per acre and so there is no evidence that yield will fall with moderate overplanting.

The best population must be determined by balancing the increasing yield as population increases against a similar increase in percentage moisture at harvest. If squeezing the plant together will increase the yield but slow down the speed of maturity then the best population for Quebec conditions will clearly be a compromise between high yield and high moisture. The studies would indicate that the optimum population for southwestern Quebec would be in the range of 25,000 to 30,000 plants per acre which is considerably higher than commonly recommended in the Corn Belt.

The same population may be achieved by different combinations of row widths and within row spacings. Evidence from a number of other experimental stations indicates that the highest yields may come when



plants are the same distance apart in all directions. Spacings of this type are difficult for farmers to achieve with present machinery and so this study did not contain any such equidistant plantings. This study does confirm the general finding that the highest yield will come when the plants are more uniformly spread over the land. Three populations, 17,424, 21,780 and 26,136, were each present twice in this study (see Table 1). Within each of these the narrower row and the greatest spacing within the row yielded the most while percentage moisture in the ear was nearly constant.

This study suggests that the 24-inch row widths are superior to 30-inch at the higher populations. Where present equipment cannot be adjusted for 24-inch rows, the 30-inch rows with a plant every 7 to 9 inches would be a desirable spatial arrangement.

Only three different hybrids were used in this study and these did not all give the same response to increasing population. At the lowest population in this study they all yielded the same on the average. It is interesting to note that until about five years ago this was the standard recommended population and spacing (36 inches x 12 inches) in Quebec. When aiming for extremely high yields by planting a high population, a farmer should choose a hybrid which is known to continue to give ever higher yields as the population is increased as opposed to one which reaches a plateau of yield at a moderate population and does not increase in yield as the population is increased. A good seed company will identify such hybrids in their advertising.

Lodging, an undesirable consequence of high populations at other places, did not seem to be a factor

in the two years these studies were conducted. In some years, however, an increase in lodging may be expected with a shift to the high populations suggested by these studies. Again, a reputable seed company will only recommend hybrids for high populations which will resist lodging.

### *the "time to plant" experiments*

The three hybrids were planted on five dates at approximately weekly intervals beginning the first week in May and ending the first week in June in both 1965 and 1966. In both years the first planting was made as soon as the soil could be properly prepared for planting at the three test locations. The three trials in each of the two years were remarkably consistent in the results they produced. In Table 2 it may be seen that the highest yields are produced by the first two dates of planting while the percentage moisture in the ear at harvest increases with each delay in planting.

There was no indication in this study of significant interaction between the hybrids and the dates of planting. That is, an early hybrid such as DeKalb 29 will mature earlier than a later hybrid such as Pride 5 if they are planted at the same time no matter whether the planting was early or late. None of the three hybrids used seemed to have special adaptation to either early or late planting. But newer hybrids may be specially bred for early planting. Look for these in the advertising of good seed companies.

These trials have shown that rarely will the three recommended hybrids,

DeKalb 29, Warwick 263 and Pride 5, reach full maturity even when planted early in May. Corn will continue to increase in weight — and hence yield — until the percentage moisture in the ear drops below about 38 per cent. These trials were harvested shortly after killing frost in both years and it will be seen in Table 2 that even the earliest planted corn did not average out over the three locations in two years at lower than 43% moisture. Hence it would seem that earlier hybrids than those used in these experiments should be planted — also as early as possible in May — if highest yields of sound, mature grain corn are to be grown in Quebec.

### *planting recommendations for Quebec*

On the basis of the experiments just described and by observing many farm operations in southwestern Quebec, the Agronomy Department of Macdonald College makes the following recommendations:

Corn for grain should be planted as early in May as the soil can safely be worked. Late frosts will not likely kill the corn and even though frosted, will be further advanced in maturity and higher in yield than late planted corn.

The narrowest row width attainable with present planting, cultivating, spraying and harvesting equipment is best. Space plants within the row so as to have in the high twenty thousands of plants per acre at harvest for highest yields. Where short season is a problem a population of not over 20,000 plants per acre should be used so that the corn may mature rapidly.

*Table 2 Summary of date-to-seeding trials conducted in 1965 and 1966 at St. Hyacinthe, l'Assomption and Ormstown/Howick using three hybrids.*

<i>Planting times</i>	<i>Moisture in ear at harvest</i>	<i>Yield shelled corn at 15 % moisture</i>
	<i>%</i>	<i>(bus./acre)</i>
<i>1st week in May</i>	43.5	96
<i>2nd week in May</i>	44.9	96
<i>3rd week in May</i>	48.2	90
<i>4th week in May</i>	56.2	80
<i>1st week in June</i>	60.3	76



# what's new in cereal crop varieties?

*A description of the varieties currently recommended for Quebec is given in the Recommendations of the Quebec Seed Board, and in the March, 1967, issue of the Macdonald Farm Journal. However, during the past two years, a number of new varieties have been licensed and released for production in Canada. Are these likely to be useful in Quebec? In this article, Dr. H.R. Klinck\* reviews their present status.*

## oats

*Kelsey* and *Harmon* are varieties developed in a cooperative program among the Research Stations at Ottawa, Winnipeg and Indian Head. Both are somewhat similar to *Rodney* in appearance. (*Rodney* is no longer recommended because of its comparatively low yields in tests.) *Kelsey* has been tested in Quebec for three years and has been found to be slightly lower yielding than *Garry*, along with a weaker straw. It is little earlier maturing than *Garry* and has a lower hull content. Rust resistance is similar to that of *Garry*. On the basis of present data, *Kelsey* appears to have less potential as a variety for Quebec than does the recommended variety *Garry*.

In many respects *Harmon* has performed in a manner similar to *Kelsey*, but is later maturing. In Quebec it has no advantage over *Garry*.

*Sioux* was developed at Winnipeg and is best adapted to the western part of the Prairies. Tested at one location in Quebec in 1966, the performance of *Sioux* was similar to that of *Garry* as regards straw

strength and yield. It is earlier maturing than *Garry* and has better grain quality. Further testing in Quebec will be necessary before a definite recommendation can be made.

*Grizzly*, a variety from the University of Alberta, has been tested for one year at one location in Quebec. Its weak straw and susceptibility to diseases indicate that it is a variety unlikely to find a place in Quebec.

*Fraser* comes from Agassiz, B.C., and has been tested only once in Quebec. It is a medium late type with good lodging resistance and indications are that it has fair yielding ability and rust resistance. Further testing will be necessary before reliable recommendations can be made.

*Stormont*, from Ontario, is noted mainly for its lodging resistance. Having been tested throughout Quebec for two years it appears to lack high yielding ability. As a special purpose, early maturing variety on farms where severe lodging is a constant problem, this may have some merit. It is not likely to be generally recommended, however.

*Cabot* was developed in the Atlantic provinces. While it is fairly productive, its weak straw will likely keep it off the Quebec recommended list.

\* Prof. Harold Klinck is in charge of the cereal crops breeding and research program of the Department of Agronomy, Macdonald College. He is President of the Canadian Seed Growers' Association, and Past President of the Canadian Society of Agronomy.

(please turn to page 19,  
(see WHAT'S NEW—)



Thousands of hours of painstaking work over many years go into the development of every new variety. Here, Dr. H. R. Klinck and the technical staff are at work in the seed selection laboratory. Dorval, Roxton and Shefford Oats, and Champlain barley are among the newer varieties bred at Macdonald College.



# THE FAMILY FARM

PUBLISHED IN THE INTERESTS OF THE FARMERS OF THE PROVINCE BY  
THE QUEBEC DEPARTMENT OF AGRICULTURE AND COLONIZATION

## corn increase

Speaking at the distribution of awards to the leading competitors in the 1967 provincial grain corn contest, Mr. Nazaire Parent, head of the field crops branch of the Department of Agriculture and Colonization, cited figures showing the progress made with this crop in Quebec.

"This year, at my request and for the first time" he said, "the Bureau of Statistics of the Department of Industry and Commerce has mentioned grain corn production. The figures published in its report show the area devoted to this crop in Quebec as 20,000 acres with a total yield of 1.5 million bushels.

"In the 1967 grain-corn growing contest, there were 286 competitors in 19 different counties. They sowed a total of 5,797 acres to this crop, as compared with the 2,894 sowed by the 202 competitors in 1966.

"The 35 finalists in the 1967 contest were situated in 12 different counties and the top ten were located

in six counties. It scarcely needs to be said that St-Hyacinthe County had the lion's share of the 35 finalists, namely 9; but Deux-Montagnes and Bagot were close behind with six and five.

"The table shows the progress made with the crop in the three years during which the grain corn contest has been held. It reveals a strongly rising trend which is very encouraging from every point of view.

"Besides showing how far we have come, these figures also indicate the almost unlimited possibilities for intensive and profitable production of grain corn. In view of these facts, I have the distinct impression that many farmers in the area would find that it would pay them from several standpoints to devote themselves exclusively to growing grain corn. By doing so, they themselves would gain and, at the same time, leave the field freer for dairy production by farmers in less climatically favoured regions. This seems to us to be a very logical course. It is up to those concerned to give it the close attention it deserves and make a decision."

Compiled by  
Tom Pickup  
Information Service,  
Quebec Department of  
Agriculture and Colonization

Photographs by  
Office du Film du Québec

### RESULTS OF GRAIN CORN CONTESTS IN QUEBEC

	1965	1966	1967
Number of competitors	218	202	286
Number of counties	18	14	19
Total acreage	3,875	2,894	5,797
Average yield of top ten contestants in bushels per acre	88.3	126.5	136.3
Per cent moisture in grain of top ten contestants	44.2	37.9	37.5
Yield of the winning contestant in each year in bushels per acre	127	138	153

Mr. & Mrs. Louis Swennen in a promising stand of corn on their farm at Henryville in Iberville County.





## new director

Jean-Marc Girard, a specialist in forage crops with the CDA's research station at La Pocatière, Que., has been appointed director of the station.

Mr. Girard, a native of Quebec City, holds B.A. and B.Sc. (agriculture), degrees from Laval University and an M.S.A. degree from the University of Toronto. His career with CDA began in 1955 as a research officer with the experimental farm at Normandin, Que., and in 1964 he joined the research staff at La Pocatière. His broad experience in forage crop research was obtained partly at the research station in Saskatoon where he worked for a 12-month period in 1960-61.

Mr. Girard is well known in agricultural circles. Besides being a member of many professional associations, he has served as chairman of the hay and pasture committee of the Quebec Seed Board and in 1965-66 he was on loan for a year to the Bureau D'Aménagement de l'Est du Québec as consultant.

The new director succeeds Dr. J. C. Perrault who will head the research group that the CDA is developing at Laval University in Quebec City. (From "This Month with CDA")

## new flax variety

Linott, a new flax variety, has been developed and licensed by the Canada Department of Agriculture. It will be multiplied in Quebec this year.

Bred at the Ottawa Research Station, the new variety can be adapted widely, but is primarily recommended for the province of Quebec. Some 30,000 acres in the province are seeded annually to flax, growers relying mainly on Marine and Norland varieties. Linott is intended to replace Marine because it matures, on the average, three days earlier, and also produces nine per cent more oil per acre. Also, it is resistant to wilt and all North American races of rust.

Since stocks of Linott seed are limited, distribution this year will be by the Quebec Provincial Seed Stock Committee, and it will contact the growers it selects to multiply the seed this year.

Extensive tests of Linott were carried out by the Quebec Seed Board with the co-operation of the staff of the Faculty of Agriculture, Laval University.

(From "Canada Agriculture")



One of the six daughters of Mr. Jean-Paul Robert in her father's sugar-beet field at St-Césaire in Rouville County.

## sugar beets

*Yields of sugar beets* in variety trials carried out in 1967 at Deschambault (Portneuf County), Batiscan (Champlain) and Val Alain (Lotbinière) ranged from 11 to 14 tons of roots to the acre (see table). These results are encouraging considering the late seeding (May 26th) and excessive rainfall — about twice the normal amount for these three counties situated just west and southwest of Quebec City. At Deschambault, the soil drains slowly so that the field was partly flooded even in midsummer; hence the low yield. In general, however, yields were not far below those usually obtained in St-Hyacinthe County (15.5 tons per acre for the period 1961-66).

*The yield of sugar* was very high — around 16 per cent — and for some of the plots at Val Alain it

reached 17 per cent. Although some refineries still pay growers by the weight of roots delivered, it is the total amount of sugar in the beets that counts.

*Varieties* cannot be evaluated or compared fairly by their performance in only one season but, making allowance for the wet weather in 1967, some indications can be got from these trials. The variety Polykuhn seems to have some tolerance for poorly drained soils judging by the satisfactory yields it produced at Deschambault and Val Alain in spite of the excessive rainfall.

The need for further testing before recommendations are made about these varieties is shown by the fact that Polykuhn gave a much lower yield of sugar at Batiscan than at the other two stations. It is proposed to continue these trials in 1968 on approximately one-acre plots at a larger number of stations.

YIELDS OF ROOTS AND SUGAR FROM THREE VARIETIES OF SUGAR BEETS AT THREE TRIAL GROUNDS IN 1967

Testing station	Variety	Acreage	Yield of roots tons/acre	Yield of sugar Percentage	tons/acre
Deschambault (Portneuf)	Monogerm	0.34	10.80	16.1	1.75
	Cercopoly	0.30	11.80	16.4	1.93
	Polykuhn	0.30	13.11	15.6	2.04
Batiscan (Champlain)	Monogerm	0.33	13.53	16.7	2.26
	Cercopoly	0.41	13.62	17.0	2.31
	Polykuhn	0.33	13.92	13.6	1.89
Val Alain (Lotbinière)	Monogerm	0.002	14.30	16.1	2.30
	Cercopoly	0.002	14.90	17.3	2.58
	Polykuhn	0.002	21.70	17.3	3.75



## the Quebec crop insurance plan

*Quebec farmers can now insure crops under the new provincial crop insurance plan, details of which have been published in a booklet entitled "Quebec Crop Insurance" obtainable from the Quebec Crop Insurance Board, Quebec 4, P.Q.*

*The contents of the booklet are reprinted here.*

The Québec Crop Insurance Act, which the Minister of Agriculture has charge of carrying out, was unanimously adopted by the Legislative Assembly on June 29th, 1967. The goal of crop insurance is to help farmers protect their income against crop losses caused by bad weather conditions.

Due to the importance and newness of this agricultural act, which is adapted to the particular needs of the Québec, farmer the Board responsible for the administration of the Québec Crop Insurance Act is providing Québec farmers with this information in order that they may become familiar with crop insurance and to invite them to participate in the plan.

It is important to bear in mind that the greatest possible participation on the part of our farmers will guarantee the success of this new and very beneficial insurance plan.

Further information may be obtained by getting in touch with the Québec Crop Insurance Board.

### advantages — characteristics what is crop insurance?

It is a form of modern and efficient protection by which a farmer receives an indemnity if, due to certain bad weather conditions, his insured crops do not yield the amount for which they are insured.

### why should the farmer insure his crops?

To be protected against a serious money loss in case of a very low yield of his crops.

### what are the main advantages of crop insurance?

Crop insurance

- protects the money and the time invested by a farmer in the production of his crops
- serves as a guarantee for the financing of his crops
- prevents debt following a bad crop
- encourages the use of better agricultural techniques
- encourages better farm management methods
- makes farming more stable and more profitable.

### what are the special features of Québec Crop Insurance?

There are two:

#### 1) It is an optional plan.

Even if it is to his advantage to become insured, a farmer is at liberty to insure his crops or not.

#### 2) It is a contributory plan.

Insurance is not free but the insured farmer pays only 50% of the total premium. The Government pays the other 50%.  
EXAMPLE: Suppose that a premium for forage and grain crops in region X costs \$80. The insured farmer will pay only \$40; the government will contribute the other \$40.

### if a farmer does not insure his crops, will he be paid in case of loss?

No. All the money collected by the Board as premiums from the insured farmers and the government may only be used to pay off the losses of those who are insured.

### who may become insured?

Any owner, lessee or occupant of a farm who conforms to the terms of the Act and the regulations of the Board.

### is there an annual deadline for presenting the official application form to the Board?

Yes. The deadline is determined by regulations according to the kind of crop to be insured and the normal sowing period in the various agricultural zones of Québec. The farmer will have enough time before sowing or the start of growth to submit his application to the Board.

### insurance crops and risks covered which crops does the Board insure?

The Board protects all forage and grain crops and also certain commercial crops.

The Board does not insure:

- a) mixed farming crops on land with an area of less than ten acres;
- b) farm crops cultivated on an occasional basis;



c) crops that are not suitable to the region because of the nature of soil, climatic or other technical conditions.

## what is meant by a mixed farming crop?

It is a forage or grain crop intended mainly for the feeding of the farm animals.

Pastures under cultivation are included in this plan; insurance protects them against certain risks and under certain conditions.

## what is meant by a commercial crop?

Examples of commercial crops are: tobacco, apples, vegetables, sugar-beets, potatoes and even mixed farming crops which are cultivated mainly for sale.

## against what risks does the Board insure crops?

The Board insures crops against the following risks:

- 1) snow
- 2) hail
- 3) hurricane
- 4) excessive rain
- 5) drought
- 6) frost
- 7) plant diseases and insects against which there are no effective means of protection
- 8) flood
- 9) damage to the roots of forage plants caused by frost or ice in the soil during the winter months.

In addition certain commercial crops are also protected against excessive wind or humidity.

## which part of his mixed farming crops must a farmer insure?

A farmer must insure the total extent of his mixed farming crops — in other words, all of his forage and grain crops.

## which part of his commercial crops must a farmer insure?

A farmer must insure the total extent of each of the commercial crops he wants to protect.

## fees rates and contributions

### who contributes to the insurance fund of the Board?

The Board's insurance fund comes from two sources:

- 1) Premiums paid by those who are insured;
- 2) contributions made by the government.

### what exactly is the Board's insurance fund for?

The Board's insurance fund, which is made up of the premiums paid by those who are insured as well as government contributions, is only to be used to pay the indemnities and compensations to which insured farmers are entitled.

### how are the rates established?

The rates are fixed annually by the Board in a fair way for each crop category, according to the different zones and regions of the province. The Board fixes rates only after consulting various specialists and taking into account different statistics, based on actuarial analyses and calculations.

### what other contributions does the Québec government make to the crop insurance plan?

Besides paying 50% of the premiums, the government pays all administrative costs of the Board.

These costs are not considered in calculating the premium rates.

### comparing policies offered by the United States and other Canadian provinces, what part of the premium is paid by those who are insured in Québec?

At the present time, (1967), for each premium dollar going toward

crop insurance, the insured farmers pays:

United States:	\$1.00 or 100%
British Columbia:	\$0.75 or 75%
Saskatchewan:	\$0.75 or 75%
Manitoba and Prince Edward Island:	\$0.75 or 75%
Ontario:	\$0.70 or 70%
Québec:	\$0.50 or 50%

### when must the farmer make his payment?

The whole payment (50% of the total premium) must accompany the application which the farmer submits to the Québec Crop Insurance Board.

### why must the payment be made in full at the time of application?

- Primarily to prevent slowness and disagreeable complications;
- and to make possible the issuing of the insurance policy.

## compensations

### what compensations can a farmer expect for mixed farming crops?

The Québec Crop Insurance Act was planned to answer the specific need of the Québec farmer. It included three forms of compensation which, grouped together in the same plan, are firsts in the entire world:

- 1) an indemnity for reduced crop production;
- 2) an indemnity for loss of pasture;
- 3) an indemnity for replacement value.

### example

Take a farm specializing in forage and grain crops with 50 acres in hay, 25 acres in grain, 40 acres of cultivated pasture land and 30 milking cows.

The farmer normally harvests 100 tons of hay.

Because of bad winter conditions, his hay crop is reduced by 50% and he is able to harvest only 50 tons instead of 100 tons of hay. What would his compensation be if we suppose the unit price of hay, fixed by the Board, is \$16 a ton?

In this case, the Board assures 80% of the production, which would be 80 tons.

Insured crop:	80 tons
Harvest obtained:	50 tons
Loss:	30 tons

Compensation paid by the Board:  
1) First, the farmer is entitled



to a basic compensation which would pay him for 30 tons of hay at the unit price of \$16. \$480.

2) The insured farmer is then entitled to a second indemnity for loss of the use of his pasture-land, which is  $\frac{1}{3}$  of the basic indemnity. \$160.

3) Then, because of his cattle, the farmer is entitled to a third indemnity for replacement value. He will be able to buy 30 tons of hay on the market for the feeding of his cows. Let us suppose that, at the time of purchase, the cost of replacement hay (for hay or cereals with an equivalent food value) is \$26 a ton, the Board will pay him the difference between \$26 and the \$16 already received, that is: \$10 a ton for 30 tons \$300.

Total compensation for a 50% hay crop loss \$940.

## what compensation can a farmer expect for commercial crops?

Producers of commercial crops can expect a repayment which goes as high as 80%:

- of the average yield of his insured crop
- of the average yield of a group of crops of the same nature in the same region.

The percentage of the guaranty will be established by the Board on the basis of the actual total cost for production of each commercial crop, either on an individual basis or on a regional basis

## example

Take an orchard with an average yield of 300 bushels of apples to the acre. Suppose that the Board insures 70% of the production, which is 210 bushels to the acre.

Insured crop: 210 bushels to the acre

Harvest obtained: 150 bushels to the acre  
Loss: 60 bushels to the acre

## compensation

If the unit-price per bushel is \$1.94, the insured farmer would receive:

60 b. x \$1.94

which is \$116.40 for each acre.

## cost

The cost of crop insurance is based on many factors, such as the yield,

the area cultivated, the type of crop insured and the rates.

Rates, based on actuarial calculations, are established every year by the Board and are published every year by December 15th at the latest.

## conclusion

The Crop Insurance act is a forward-looking piece of legislation, generous and complete in its coverage. It is destined to give Québec farmers priceless security and service. It is in the interest of all our farmers to take advantage of this new insurance plan. Their collaboration will contribute to the progress of our agricultural population.

# crop insurance board

The Minister of Agriculture and Colonization, Mr. Clément Vincent, has announced the formation of an advisory committee to make recommendations to the Quebec Crop Insurance Board regarding the application of the Crop Insurance Act, as provided for in that act.

The committee will be under the chairmanship of Mr. Jean-Paul Coriveau of Saint-Thomas, Joliette, who is president of the flue-cured tobacco producers' board. The duties of secretary will be carried out by Mr. Jean-Marc Ducharme, who is also secretary of the Crop Insurance Board.

The other members of the advisory committee are as follows:

Mr. Jean-Paul Diné of Chénéville, Papineau county, a producer of manufacturing milk who was president of the Saint-André-Avelin agricultural cooperative society for many years before becoming president of the Papineau county cooperative which resulted from the amalgamation of all farm cooperatives in the county. He is also director of the Coopérative Fédérée for his district;

Mr. Louis-Philippe Rioux of Trois-Pistoles, Rivière-du-Loup, also a manufacturing-milk producer, vice-president of the Rimouski branch of the U.C.C. and director of the Lower St. Lawrence cooperative;

Mr. Paul-André Tardif of Saint-Nicolas in the county of Lévis, vice-president of the Eastern Quebec branch of the U.C.C. and president of the Quebec district fluid milk producers' syndicate;

Mr. Cyril Dahms of Huntingdon, president of the Quebec Farmers' Association;

Mr. Rosaire Tanguay of Saint-Pie in the county of Bagot, member of the U.C.C., sugar-beet grower and market-gardener and president of the Bagot county agricultural society;

Mr. Robert Boulé of Palmarolle Abitibi-West, president of the North-west Quebec fluid milk producers' syndicate;

Mr. Marcel Bergeron of Saint-Prime, Roberval county, son of the Mr. Johnny Bergeron who was the head of Quebec's Farming Family of the year in 1966. He operates a very large farm with the help of his four brothers;

Mr. Paul Mailloux, director of the General Insurance section of the Department of Finance and inspector of insurance companies for the Insurance division;

Mr. Léon Sylvestre of the Department of Agriculture and Colonization, assistant to assistant Deputy Minister Mr. Lucien Bissonnette.

# ARC's contribution

"The Agricultural Research Council makes a very big contribution to the training of staff for agricultural education in Quebec", says Dr. Bertrand Forest, chairman of the Council and director of the Research Service in the Department of Agriculture and Colonization. The Quebec Agricultural Research Council, which is responsible for coordinating research in the field of agriculture, is composed of representatives of the Department of Agriculture and Colonization, the federal Department of Agriculture, agricultural faculties of universities, and agricultural organizations.

Of the present 164 ex-holders of scholarships granted by the Research Council 48, with a master's or doctor's degree, are now on the teaching staffs of Quebec universities — as follows: Laval University faculty of agriculture 21; other faculties at Laval 9; University of Montreal 9; the Veterinary College 7; McGill University 2.

The government of Quebec, which is naturally the first to benefit from the services of those whom the Agricultural Research Council has helped to obtain postgraduate degrees, now has 54 of them in its employment. Most of these (46) are in various services of the Department of Agriculture and Colonization, 16 being on the teaching staff of the Institutes of Agricultural Technology. The Canadian government has engaged 32, most of whom are attached to research stations of the Canada Department of Agriculture in Quebec.



## Order of Scholastic Merit awarded

G. A. Rockwell, Assistant Registrar, Macdonald College, has been named by the Minister of Education as the recipient of the Third Degree of the Order of Scholastic Merit, the province's highest honour for Protestant educators. The award will be presented March 29th, in Montreal, during the annual convention of the Provincial Association of Protestant Teachers.

Mr. Rockwell began his career as a teacher in New Brunswick. After 12 years as teacher and principal, he moved in 1941 to Sherbrooke where he remained for 16 years as head of the science department of Sherbrooke High School. Joining the Department of Education in 1957, he became, successively, Inspector of Secondary Schools, Secretary of the Protestant Central Board of Examiners, and Associate Chief of Teacher Certification, and, in 1967, was appointed to the administrative staff of Macdonald College. He attended the New Brunswick Teachers' College and holds a B.A. degree from the University of New Brunswick as well as the M.Ed. degree from Bishop's University.

On the invitation of the British Council of Education, in 1964, Mr. Rockwell attended a seminar on the English education system. The course was held in Farnham Castle, Farnham, England, and included educators from many parts of the world.

## staff appointment

Dr. Blackwood, Chairman of the Department of Microbiology announces the appointment of Dr. Jordan Ingram to the staff of the Department. Dr. Ingram is a 1959 graduate of Macdonald College and has been pursuing further studies at Michigan State University. Most recently he has been working with the Cell Biology Research Institute of the Canada Department of Agriculture, Ottawa. His research interests at Macdonald will be concerned with a study of a yeast enzyme at the molecular level.

## education week

The first week in March has become traditionally designated as Education week in Canada. In the case of the Macdonald College Extension Service, a special focus on continuing education gave the opportunity for a review of the state of education in Quebec.

Dr. Fernand Jolicoeur, Director General of Adult Education, Quebec Department of Education presented a review of the accomplishments of his two years in Provincial adult education.

Other programs presented during the week included a public showing of "This Is Marshall McLuhan — The Medium Is The Message," and an evening program dealing with family relationships.

## DHAS field day

The Dairy Herd Analysis Service at Macdonald College sponsored a field day on February 29th, for all dairymen enrolled in this program. This field day provided everyone an opportunity to visit the college, and to learn more about this relatively new program.

Interest was high when Norman Campbell, Chief Supervisor of this program explained how the recently released 12 month average and cow rating index could be profitably used by the farmer.

There were many questions during the question period. Everyone present had an opportunity to visit the D.H.A.S. facilities and see the monthly reports being processed.

An important part in any dairy farmers visit to Macdonald College is seeing the dairy herd. During the afternoon the group moved to the dairy barn. Rudi Dallenbach, Director of the Farm explained to the visitors how the college herd is managed. A demonstration of proper milking techniques was of interest to everyone.

This large group of farmers apparently enjoyed their brief but fact filled visit to Macdonald College. There will be more field days such as these. Now that there are over 500 herds on this program there will be many others interested in seeing D.H.A.S. in action.



Mr. A. D. D. McEwen, branch manager, J. I. Case Co., Montreal, is shown above (left) presenting a J. I. Case Co. cheque for \$500 to Professor R. S. Broughton, chairman of the agricultural engineering department, Macdonald College, of McGill University, for the newly announced Case scholarship in agricultural engineering.

The scholarship will be awarded to a male student completing the third year in the department of agricultural engineering and proceeding into the fourth year.

Made available by the J. I. Case Co. as a centennial gesture, the \$500 scholarship will be awarded on the basis of good academic standing and an interest in the agricultural machinery industry. Preference will be given to financial need.



# Women's Institutes



Norma Holmes  
Quebec Women's Institute

**ABITIBI:** - *Matagami* — Roll Call — decorated cupcakes. A Penny Sale held and it proved to be very successful, with twenty-one members present. A demonstration on decorating a cake — this cake was raffled after the meeting. Old Christmas cards collected by members and sent to home for retarded children.

## **CHATEAUGUAY-HUNTINGDON:**

*Aubrey-Riverfield* — Mrs. Johansson read a paper on Manitoba. Robert Burns poem "A Man's a Man for A' That" was read by Mrs. J. Hamilton. Notes of gratitude from Christmas Cheer recipients were read. *Dewittville* — Discussion of the proposed amendments to Criminal Code: Abortion and Contraceptives. A quiz held on General Knowledge. Each member brought a gift for retarded child to be sent to the Gay Valley School for Retarded Children in Huntingdon. A committee was named to assist the Dewittville Youth Association with the Community Skating Rink management. Christmas Carols were enjoyed. *Franklin Centre* — A social evening was held for the families and friends of the W.I. members. Cards and croquignole were played and prizes given. Hot supper opened the evening of fun. *Hemmingford* — 34 Christmas Cheer boxes were packed and delivered. A Christmas parcel was sent to an adopted patient in Douglas Memorial Hospital, also other boxes delivered there. \$126.06 was collected for the UNICEF Fund. Mrs. R. Petch gave points of interest on Handbook. *Huntingdon* — Silent Auction was held. Recipes were given for using cheaper cuts of meats. Roll Call — serving hints given.

**COMPTON:** — *East Clifton* — The principal and another teacher from Sawyerville High School were guest speakers, their topic was Education. An exchange of gifts among the members. Donation of money given to the Sunday School for Christmas tree and treats. *East Angus* — Roll Call was donations for Christmas Cheer boxes. A program consisting of carol singing, a raffle and exchange of gifts. *Cookshire* — Home Economics Convenor gave old-fashioned Tips on Health. Publicity Convenor spoke of the integration of the Indians in Ontario and the work of the Toronto Indian Center in disposing of Indian handicrafts. The members are knitting squares to make a quilt for an Old Peoples Home.

**JACQUES CARTIER:** — *Ste-Anne* — Film "Helicopter-Canada". Donation of money given to the Children's Library, Ste-Anne.

**MEGANTIC** — *Inverness* — Answered the roll call by making a useable article from a used container. Several were brought in and sold. Contest held making words from a given word in a stated length of time. *Kinnear's Mills* — Answered the roll call by telling when, where, and by whom you were married. Cards sent for Christmas remembrance to friends and shut-ins. Assisted with a party for the Children.

**MISSISQUOI** — *Cowansville* — A discussion on the importance of continued individual education for adults brought out many interesting facts and ideas. *Dunham* — brought gifts for hospitalized children; gave a donation to the Home for Retarded Children; played Santa Claus game and held a contest on Puzzling Places; congratulated Mrs. Farnam on being a member of the W.I. for thirty years. *Fordyce* — Each member described what she liked best at EXPO. One gave a talk on the methods and principle of the Trade School at Waterloo, Quebec. Closed the meeting with singing of Auld Lang Syne. *Stanbridge East* — Each member represented a song, after which that song was played and a verse of it sung.

**PAPINEAU:** — *Lochaber* — Mr. and Mrs. Johnson received \$10.00 from the Government for the beautification of their home in 1967. Mrs. McNamara was given a brooch in recognition of her work done in making quilts out of coats and giving them to the Unitarian Service. Plants were given to three Senior members and exchange of gifts was held.

**PONTIAC:** — *Fort Coulonge* — Roll call — a casserole recipe and Household Hints. Wall hangings for a child's room made of felt and coat hangers were displayed. Three readings pertaining to Home Economics were given. *Shawville* — Roll Call brought in suggestions for raising funds. Plans completed for a card party and a bake sale. The Bridge Marathon continues averaging six tables per week and a dollar per table. Held a white elephant sale. Mr. McMillan (Agronomist) addressed the meeting using the Progress of the Farmer as his topic — also on the pros and cons of Milk. Have taken over the responsibility of the Hospital Cart for a month. The forementioned Bridge Marathon has been the main source of funds in this Branch for several years. *Bristol* — An interesting paper given by a mem-



ber entitled "Happy Living in your Kitchen". A paper given on "How to live to be 100"; also one entitled "Our Centennial is Over". Plans made for a work-box held at the meetings — members donating what they wish. Christmas gifts furnished for a patient in an Old Memorial Home. *Clarendon* — Tickets were sold on one of the dolls from the Fair Exhibit, ninety dollars was realized from this raffle and the money sent to the C.N.I.B. Money was collected from the members to buy treats and favors for Ade Home. Many games and contests were enjoyed as well as the exchange of Christmas gifts. *QUEBEC*: — *Valcartier* — The Verdun patients were remembered with Christmas gifts, also a neighbour who has been ill in hospital for a long period of time. A sum of \$100.00 was voted to be given to the Dunn School for Retarded Children. The Canadian Constitution to be read with fifteen minute periods of discussion to follow. Cotton to be brought in for Cancer Clinic. A fifteen minute period of quizzes, jokes and games followed by exchange of Christmas gifts and Carol singing.

*RICHMOND*: — *Cleveland* — Roll call was answered by telling of a famous person who had overcome a handicap. Members are working on an applique quilt. Donation of \$25.00 given to Welfare Fund at St. Francis High School. *Gore* — Roll call — name an old-fashioned remedy; a gift was sent to the husband of the President — he being a patient in a hospital. Contest on making words from "Welfare and Health". An article given on "Progress against Cancer". A member has written an original play for County competition. *Spooner Pond* — Roll call — bring a written suggestion for the new program. Heard report on Christmas cheer boxes; sent gifts to two boys at Dixville Home. The Quebec Mosaic was on display and orders were taken for the book. Contest "Search for the Cities" won by Mrs. G. Fortier who also won the regular monthly drawing prize. Home Economic Convenor sold elastic, braid and lace.

*ROUYN-NORANDA* — *Rouyn* — Several visits to the sick were made during the month. Members donated blood following an urgent request for donors by the Blood Clinic Supervisor. Education is a topic often discussed at the meetings. *Noranda* — A joint meeting in the form of a Christmas Party of the Noranda and Rouyn Branches was held, the program being organized by the Rouyn Convenor. Exchange of gifts. A delicious lunch was served.

*SHEFFORD*: — *Granby Hill* — In October, Mrs. Ossington reported on her visit to the Indians in the North and on the County Meeting held in Waterloo. Donations were made to the Salvation Army appeal also to the Granby High School. In November — a contest was held on building words. The annual supper for members and their families was held at the home of Mrs. John Sanborn with a large attendance. Cards were enjoyed after the supper. In Dec. a contest was held on jumbled letters. A Centennial Party was very successful with approximately 150 invited guests enjoying cards and dancing. *Granby West* — Health and Welfare Convenor reported that people in Canada are among the healthiest in the world. Home Economic Convenor read an article on the best way to buy shoes. Agriculture Convenor brought it to our attention that 27 Korean students are being trained in Agriculture in Ontario. Many members made cancer dressings. Gifts were sent to one of the High Schools as well as to some of the more elderly and shut-ins for Christmas Cheer. *Waterloo* — *Warden* — Christmas meeting was held at the home of Mrs. Mairs. There were Christmas readings, carolling and exchange of gifts. Collection taken to take care of birthday cards.

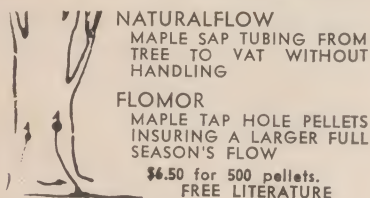
*SHERBROOKE*: — *Ascot* — Two readings were given "Christmas" and "Bells". Decorated Christmas Cheer baskets filled for shut-ins. Oranges sent to the Grace Christian Home. Money voted for Hot Lunches Program at Lennoxville High School. Exchange of gifts. *Belvedere* — Roll Call — bring a dozen cookies for Grace Christian Home. This meeting was held in the form of a Christmas Party with carol singing and exchange of gifts among the members — with children of the members being remembered. The President, secretary and treasurer were presented with gifts of cups and saucers with the Centennial Rose design. The Sunshine Convenor was given a pin as a token of appreciation for her many years of faithful work in that department. A delectable chicken patty luncheon was served by the hostesses. Money was voted for the Q.W.I. Service Fund (\$1.00 per member) and for a donation to the Hot Lunch fund at Lennoxville High School and also to the school for help of retarded children for Christmas Cheer. The branch catered to a banquet recently. *Brompton Road* — roll call — bring a toy for a child in Maplemount Home in Cookshire. Exchange of Christmas gifts between the members

and guests. Carols were sung. Members worked at the Cancer Clinic; money was voted for a crate of oranges for the Wales Home in Richmond. Gifts were brought in for four boys stationed in Germany and Canada, and gifts for two shut-in members. Plans completed for the Christmas Tree program for the community children. *Lennoxville* — roll call — a tradition or legend of Christmas. Resolutions sent to the Government by F.W.I.C. and the legislation re: abortion and legalization of sale of contraceptive pills were discussed at length and a motion was made that our branch goes on record as being in favor of the resolutions. An article was read on Burns and how to take care of them, also on danger of fire with Christmas trees. Exchange of gifts with a prize for the most artistically wrapped gift. We pledged to help the fund for the Northern W.I. activities by paying \$10.00 per year for three years. \$10.00 voted for the use of the Anglican Church Hall for our Tea. Christmas Cheer boxes to be sent to the sick and shut-ins. 88 squares for afghan were sent. *Milby* — Gifts were exchanged by the members. A donation of \$5.00 was given to the Lennoxville School for their lunch program. A card signed by the members will be sent to Mrs. William Evans who will be absent for the winter months. New tablecloths are purchased for the Club Room, these will also be used at Receptions, etc.

*STANSTEAD*: — *Ayers Cliff* — Christmas Cheer was sent to the sick and shut-ins at Christmas. Food Baskets have been sent to a needy family and hot lunches at school provided by a donation for the same family. At the Jan. meeting Miss Nora McCardell, Clinical Psychologist supervisor with the regional School Board was guest speaker and gave a very interesting talk on her work. Several guests were present. *Beebe* — Christmas supper party was held at the home of the President; sang carols, played games, and had a square dance. There was an exchange of gifts. Each member brought a gift for a child at the Dixville Home. Mrs. Hayward displayed Christmas table decorations and window decorations made by the children at the Beebe Elementary School. A quiz game on cake was held and plans completed for Christmas Cheer boxes to be sent to shut-ins. *Stanstead North* — Roll Call — each member paid fifty cents to go toward Christmas Cheer. An exchange of Christmas gifts was held and a program of Christmas readings was heard. Jan. meeting — roll call was your New Years resolution. Food



baskets, plants and cards were sent to needy and shut-ins also a year's subscription to Stanstead Journal. Sponsoring school lunch tickets for a needy child for a period of time. Members gave readings both humorous and otherwise — those not giving a reading were fined ten cents  
**VAUDREUIL:** — *Harwood* — This meeting under the direction of Mrs. P. Chicoine, Education Convenor, took the form of a round table discussion. The interest of the group was shown by the lively manner in which the questions regarding present day schools and education in general were brought up and discussed. Tried the singing of the new bi-lingual version of 'O Canada' and found it went very well.



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## THANK YOU!

I would like to thank the many members and convenors from the various branches and counties for the lovely Christmas greetings and the many expressions of encouragement expressed.

## Christmas stockings

A letter from Mrs. Lewis, Chairman of the 'Stocking Project' for Save the Children Fund:

Dear Members of the Quebec Women's Institute:

You had a most successful year and I want to thank you sincerely for your wonderful effort. You sent in 1,118 — each and every one was lovely

An unfortunate thing happened. A nice box of 14 stockings failed to arrive and it was most distressing — for the ladies who had taken so much time and effort and for us as I had hoped to get 1500. I ended up with 1477. I do hope that group will not be discouraged and try again.

Please accept my congratulations and to you all a happy New Year.

Looking forward to hearing from you later this year, I am

Sincerely yours,

Dorothea Lewis

Mrs. Lewis phoned later that she should have mentioned that all stockings should be closed at the top, so that articles do not fall out in handling.

## my patch of sky

*(Taken from the Australian  
 Country Woman)*

*My patch of sky is always blue,  
 Ethereal, consistent, true,  
 If cobwebbed o'er with windswept  
 clouds  
 Or swiftly flecked by feathered  
 crowds.*

*With sunset brushed on western wall,  
 If blanketed in soft, grey pall —*

*Beyond the heron's leisured flight,  
 Behind the curtain of the night,  
 Still further than the sunset's glow,  
 Above the rainbow's curving flow  
 Though man soars high on silver wing  
 The blue still arches everything.  
 In puddles mirrored after rain*

*When storms have raged and passed  
 again,  
 My moon, my stars shine out for me  
 In steadfast, sweet serenity.  
 My life, my work, my days go by  
 Beneath my sapphire patch of sky.*

Rita Aston (Quakers Hill)

## Waterloo-Warden 40th Anniversary.



*From left to right: Mrs. D. Martin, Mrs. L. Maynes, Mrs. P. Jones, Sandra Bowker, Mrs. C. Bowker, Mrs. L. Durrell, Mrs. Sherwood, Miss Alice Ashton, Mrs. M. Sicard, Mrs. M. Hilliker, Mrs. C. Mallette, Mrs. C. Mairs, Mrs. W. Ramsay, Mrs. H. Smith, (Mrs. Young's knees).*

*(our Alice's answer to 'one of those  
 cards from sunny Florida:)*

*Oh is it the bite in the air,  
 Or the ice on the roads and the trees?  
 Or the feel of the frost in your hair  
 When your toes are beginning to  
 freeze?*

*Or is it the temperature  
 When it goes away down below zero  
 And a walk in the air, cold and pure,  
 Makes one feel akin to a hero?*

*Or is it the promise of spring  
 When the sun shines so bright all  
 the day  
 And we think of what summer  
 will bring,*

*Ear muffs and fur coats put away?  
 Or is it the glory of fall,  
 With mountains and valleys ablaze,  
 With beauty and color enough  
 To remember the whole of one's days?*

*Oh we have all these in Quebec  
 And lots more we don't talk about,  
 And I'm a Quebecois, by heck!  
 So I guess that I'll just stick it out.*





*L. to R. Front Row: Little Sandra Bowker, Mrs. C. Bowker, Mrs. P. Jones, Mrs. M. Sicard, Miss Alice Ashton, Mrs. Sherwood, our oldest member (86 yrs.), Mrs. L. Maynes, Mrs. C. Mallette, Mrs. H. Smith  
Back Row: Mrs. L. Durrell, Mrs. W. Copping, Mrs. M. Hilliker, Mrs. W. Ramsay, Mrs. C. Young, a former member (88 yrs. old)  
Miss Alice Ashton is the only active charter member in the group. She and Mrs. Sicard are Life Members.*

### more institutes in the Yukon

Two more Women's Institutes have been organized in the Yukon. These are at Carmacks and Teslin, reports Miss Florence P. Eadie, Field Worker for the Federated Women's Institutes of Canada, as she returns from a three month's trip in the Mackenzie District and the Yukon. Interest has been shown in a few other communities in both Territories as a result of her visit. Miss Eadie also spent some time with the twelve groups that already formed the Northern Canada Women's Institutes.

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WHAT'S NEW —

(continued from page 9)

### summary for oat varieties in Quebec

Recommended for 1968: Dorval, Garry, Glen, Shefford, Roxton. Where severe lodging is a problem: Stormont.

Not recommended: Kelsey, Harmon, Grizzly, Cabot.

Requiring further tests: Sioux, Fraser.

### barley

*Conquest* is a malting variety from Brandon, Manitoba, now widely grown on the Prairies and recommended in Ontario. Its yield performance in Quebec tests has been similar to Parkland but below that of Champlain. Its straw is not quite as strong as that of Parkland. Further testing data are required before a definite recommendation can be made, but *Conquest* looks promising as a barley variety for Quebec. It is resistant to loose smut.

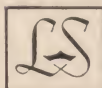
*Galt*, a variety developed at Lethbridge, Alberta, was entered in the Quebec Regional tests for the first time in 1967, although limited tests were conducted in 1965 and 1966. Its yield performance and lodging resistance to date have been encouraging

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and this may well be a future variety for Quebec. Further tests will be necessary.

*Centennial*, a two rowed variety released from the University of Alberta, was grown in a limited number of tests in Quebec in 1967. It has yielded poorly and will likely be deleted from further tests, despite its very strong straw. It is not likely to find a place on Quebec farms.

*Paragon*, the newest release from Brandon, Manitoba, was tested on a limited scale in Quebec in 1967. The one year's data indicate that it is similar to Parkland in yield and lodging resistance. It is a smut resistant malting type. Further tests will be conducted on this variety.

#### Summary for Barley Varieties in Quebec

Recommended for 1968: Champlain, Parkland, Nord (in northern areas)  
Not recommended: Centennial  
Requiring further tests: Conquest, Galt, Paragon

### wheat

*Manitou*, from Winnipeg, is the most recent release in spring wheat varieties. This is a bread wheat widely grown in western Canada but is not productive under Quebec conditions. With the increasing interest in spring sown wheats, a number of varieties of foreign origin have been tested. These include types from Mexico, India, Pakistan, Germany and several other countries. Some varieties have shown a considerable yield advantage over Selkirk but will require further testing before any of them can be commercially produced in Canada.

Selkirk continues on the recommended list as the best spring wheat variety currently available for Quebec.

No new winter wheats have been released recently in Canada.

### rye

*Cougar*, a new variety from the University of Manitoba, was tested at one location in Quebec in 1967. Grain yield was higher than that of the recommended variety, Horton, but straw yields were well below those of Horton. Cougar will be tested further in 1968.

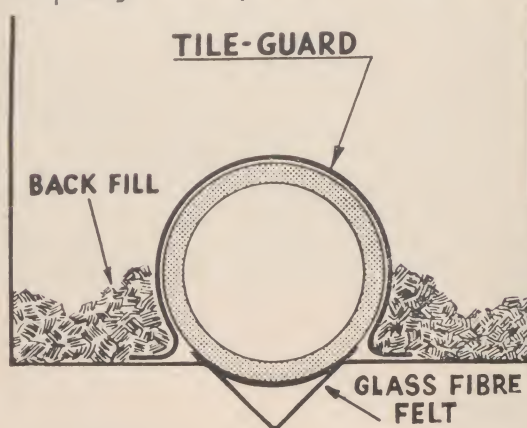
### flax

*Linott* was developed at Ottawa and is considered to be a replacement for Marine in Quebec. Tests show it to produce more oil per acre than Marine. Present seed stocks are limited, but this variety will likely go on the recommended list once sufficient seed is available.

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Cash crop farm, Fox Township,  
Kent County - R. H. Wilson

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THE MACDONALD LASSIE





Editor

**Mark W. Waldron, Ph.D.**

Macdonald College

Associate Editor

**Lance K. LeRay**

Associate Editor

**Tom Pickup**

Office of Information,  
Quebec Dept. of Agriculture  
and Colonization

**Hib Saunders**

Advertising Manager,  
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**COVER: Cash Crop Farm — Dover Township, Ontario:** Just west of Chatham, the small town of Paincourt is the centre of a French-Canadian farming community, somewhat unique for this part of the country. Farming here is entirely different in character from the popular conception of farming on the shores of the St. Lawrence. This drawing was done on a very cold Sunday morning, inside an auto, with the heater going! According to the bank manager who accompanied Mr. Wilson, there's about \$7,000 of corn in that crib.

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## will Quebec lead the way?

Imagine. Four thousand students, English and French, Protestant and Catholic, all going to the same school. Impossible, in Quebec? Not any longer for the great expectations of the Parent Commission are quickly becoming facts of life. The first of what will become a number of comprehensive high schools for rural Quebec is featured in this issue of the Journal. If this is representative of the new form of education in this province, then young people from rural communities will no longer be penalized for the right to live in the country.

This visible evidence of the reform in Quebec's educational system is long overdue. It is no secret that it was one of the most backward, authoritarian, rigid systems that could be found. About the only good thing that ever happened to the old system was the consolidation of one-room schools. That was nearly twenty-five years ago. Fortunately, Quebec has changed to the point that one of the most advanced systems of education possible is being developed here.

This new school is putting into practice many of the objectives of the Parent Commission: to free the talents of children, as well as supplying them with basic skills, to free the students from rigid discipline and from a paternalistic, irrelevant system. In addition, the curriculum is planned in such a manner as to lead to equal opportunities for all learners, to allow the individual to develop to his utmost intellectual capacity. As such the school system ends an era of gate keeping, an era when only those who were able to survive the "sifting and winnowing" process, based on knowledge of academic facts,

were allowed to progress. Those who didn't squeeze through were dropped out without the opportunity to drop back in. The new era is one based on the idea that students as individuals should be educated as individuals so that when they arrive at the gate they are ready and prepared to face life on the other side of the fence.

With the establishment of these new regional schools and the colleges of general and technical education, it is essential that a new look be taken at the post-secondary levels of education. Much of the responsibility for the success of the new system will depend on teacher education. As such, Macdonald College is deeply involved. Perhaps in recognition of this, a doctorate degree in counselling will be offered by the university. Such expertise is urgently needed as the school psychologist and the guidance staff are becoming the key members of the team. This, however, should not detract from the challenge of training the best teachers possible to make use of one of the best educational systems.

We hope that our enthusiasm for this new look in rural education in Quebec is contagious. The Chateauguay Regional High School is setting the stage and providing a model of what is to come. As tax-payers we are concerned, as parents we must be aware. The new system is going to cost money but it is money that cannot be spent other than for investment in the future. And what better investment is there today, than in a system which encourages our young people to take their earned places in a great Canadian society?

*The Editor*



# education — Quebec — 1968 version

*A visit to the Chateaugay Regional School provides an idea of the changes in Quebec education*

*by Mark Waldron*

Five years ago when Quebec's Parent Commission recommended the redrawing of school boundary lines and a completely new form of education almost everyone reacted with the "Nuts!" attitude. "It will never happen here". "Who has the money for that?". "A bus ride of 30 miles, one way? The kids can't stand it". And on and on.

Yet today, in 1968, the new system is operating. Evidence of this fascinating change in Quebec education is no further than Ormstown, in the agriculturally rich southwestern area of the Province.

Just over one year ago today, the Chateaugay Regional High School was an architect's blueprints and a field of Alfalfa. By last September a massive new, multi-acre youth centre had grown where only months before cows had been grazing.

"Things sure happened fast," said a local beef producer; "mind you there were lots of problems with lack of equipment and scheduling of classes, but that's all changed now. Besides that, we've already been having some farm meetings there. It's really like a community centre." And that's the way it was intended to be.

Each morning, 970 students, mostly English-speaking, both Catholic and Protestant, converge from a 31-mile radius to spend a day in a totally new learning environment. Most of the students are from the former high school areas in Howick, Ormstown and Huntingdon but some come from beside the U.S. border. Meanwhile the 58 teachers, including three Catholic sisters, prepare for the day's learning activities.

There is no shortage of facilities. Classrooms are equipped with sophisticated visual aids. For special assemblies there is a model "Place des

Arts" which seats 500 with a massive stage, and a number of dressing and costume rooms. The music and rehearsal areas are located conveniently beside the stage.

Across the entrance foyer, students have access to three gymnasiums and an ultra-modern, electronic cafeteria. The most attractive resource area in the school is the library with magazines, records and other instructional aids. The bright skylights complement the brown furniture on the attractive carpeting.

In another area of the school, students work on various projects in the technical-vocational subjects. There are five shop rooms — for wood, metals, motors, electricity and electronics. Other specialized lab areas are provided for home economics classes.

But, as has been said before, "It's one hell of a good school, if we only didn't have kids." In this school the kids are the reason for the good school.

Never before have the students had the freedom of planning and the opportunity of participating in their learning experiences. The curriculum has been designed to encourage learning geared to one's individual learning styles. There are classes for regular students and enrichment classes for the superior students. A special emphasis is placed on those who have been slower learners who need the opportunities of remedial help. There is also a class for the educable retarded, a first for this type of school.

The philosophy of freeing the students from rigid discipline and from a paternalistic irrelevant system is best represented by a new type of course titled social and moral development, or M.S.D. as it is known.

By application of the ideas of







student participation, and the activist form of learning, the curriculum is freed to develop in students the ability to think for themselves. This free expression, seminar approach to the various social and moral issues that face young adults today is a new concept in education. The students love it.

One student told me that in the M.S.D. course, they were wondering, "Why on earth anyone would ever become a nun?" Because there were nuns on the staff, one joined the class and provided her answer. Meanwhile other grades were talking about various world religions, their differences and similarities. Another group was discussing the film, "Boy to Man", dealing with sex education.

"The real objective of the M.S.D. course is to have students think for themselves," reported one teacher. Another added that, "It's impressive, what the students can say and do if given the chance."

The M.S.D. course is taught in all four high school grades and focuses on such diverse themes as the family and the community, comparative religions, current events and jazz.

The same activist approach is being used in the agricultural science courses. According to Wink Keeler, the instructor in charge of agriculture, "It was pretty hard to get used to

this new system of teaching but now the students really are motivated to do better work. And they are so interested." Mr. Keeler has his students working on individual projects, studying plant collections, analyzing soil using various tests and getting a new look at agriculture through the microscope. A greenhouse attached to the school encourages small research projects on fertilizers and plant growth.

All students take agricultural science for at least one term during the first two years. The in-depth Ag. Science course is offered at the Grade 9, 10 and 11 levels in the technical and occupational school. These students could then continue on to the diploma-agriculture course at Macdonald College.

During the evening and sometimes even during the daytime, adults from the surrounding community also use the new school facilities.

A complete evening school giving high school credits is being developed for those that want up-grading. This year, as a beginning, French and typing are being offered. The community also has access to use of the cafeteria and auditorium for community events and meetings.

"Some people are worried about the tax bill though," said one teacher, "but I guess that's only natural."

The school cost \$2,750,000.00.

This new school should set the tone for the other regional schools that are being built. Already it seems that Chateauguy Regional is going to be upstaged by the bilingual school for 4,000 students planned at Cowansville. This is good, if each school becomes a model to be improved on by others.

Through the regionalization of the school districts, and the new positive attitude of teachers toward behavioral change, these schools will "free the talents of children, as well as supplying them with basic skills." This is what Quebec needs. And the Chateauguy Regional School is going to prove that an atmosphere of openness and honesty, of involvement and acceptance of the student as a person, leads to intellectual development. The teacher becomes a guide and facilitator of learning. The school provides the environment. Parents supply the interest and encouragement. But the focus is on the student so that regardless of his ability, he can lead a full life with control over his decisions — a life that encourages him to take his place in the 21st century.

That's education in Quebec today — an era of change, a time of experiment and leadership. It's about time!



# a look at Quebec forages

The farmer of today is being forced by competition to become more efficient in order to survive. In the case of the dairyman and beefman, better forages and more efficient use of the existing forages are a never-ending search. The problem of producing more nutritional forages as it applies to the dairyman can be discussed under two broad headings — the present situation, and changes for the future.

## *the present situation*

As a part of my M.Sc. research project at Macdonald College I have conducted a survey to determine the nutritive value of forages in Quebec. During the fall of 1966 some 270 hay samples and 82 corn-silage samples were gathered from approximately 100 different farms. Due to the problems of gathering sufficient samples, the area of Quebec surveyed has been limited to the area served by the Dairy Herd Analysis Service. This area is basically south-western Quebec but as D.H.A.S. continues to grow we have been able to obtain forage samples from practically every dairy area in the province.

These samples have been studied in the nutrition laboratories of the dept. of animal science at Macdonald College. Various chemical laboratory analyses have been conducted for protein, cellulose (fibre), and dry matter in the case of silages. These forages have also been tested by a laboratory test developed at Macdonald College, which utilizes enzymes, to measure nutritive value. The results of this test are designated as "quality code" values, which appear to be a more sensitive measure of forage nutritive value than others such as TDN, currently used. The tables summarize some of the laboratory results obtained with these forage samples.

## *hay*

In Table I hay samples have been divided into first cut and second cut according to quality code. The highest percentage, 29% of the first cut-hay samples had a quality code of 40, while 58% of the samples were below 40 and only 13% were higher than 40. A quality code of 40 or above should be the goal of a dairyman wishing to improve his forage. This is not beyond the reach of any farmer as can be seen from the percentage of samples (42%) which have a quality code of 40 and higher.

The number of samples of second-cut hay is limited but does give some indication of what can be accomplished on the same farms. Eighty percent of the second-cut hay had a quality

code of 40 and higher, while only 20% was below 40. This indicates what can be accomplished when hay mixtures contain a higher proportion of legumes.

The distribution of hay samples according to protein followed basically the same pattern as quality code. It was interesting to observe that 88% of the first-cut hay contained less than 12% protein which is the protein level of western grain. Only 12% of the samples were higher than 12% protein. All the second-cut hay samples were higher than 14% protein, indicating the influence of legumes on the protein content of the hay. The average percent protein of first-cut and second-cut hay was 9.8 and 17.2, respectively.

## *corn silage*

Table II shows the distribution of corn silage samples by dry-matter content. There is much experimental evidence to indicate that the largest factor affecting the nutritive value of corn silage is its dry matter content (D.M.), and that the available energy in the dry matter does not vary to any extent. This means that the feeding value of corn silage is thus dependant on the amount of dilution by water of the energy contained in the dry matter.

This survey shows that 62% of the corn-silage samples were below 29% D.M., while 30-35 D.M. is generally considered close to the ideal D.M. level. These samples ranged all the way from 17% - 40.9% D.M. During the fall of 1967, 75 samples of corn silage were analyzed for D.M. and there has been an increase in the D.M. content from the average of 27.1% in 1966 to an average of

*Legumes harvested at mid-bloom are at their highest nutritive value. Too often cutting is delayed to attain higher yields at the expense of quality.*



by: R. F. (Dick) Welton,  
Dept. of Animal Science,  
Macdonald College.





Table I — Distribution of Hay Samples — Quality Code

Quality Code	First Cut		Second Cut	
	Number	% Total	Number	% Total
20	2	58	1	20
25	15		2	
30	59		2	
35	65			
40	71	29		
45	20	13	2	80
50	9		4	
55	2		6	
60+	1		9	
	244	100	26	100

Table II — Distribution of Corn Silage Samples — Dry Matter

Range — D.M. %	Number of Samples	% of Total
17 - 20.9	6	62
21 - 24.9	22	
25 - 28.9	34	
29 - 32.9	12	38
33 - 36.9	5	
37 - 40.9	3	
	82	100

29.3% in 1967; this would indicate that dairymen are harvesting their corn silage at a more mature stage.

Corn silage should never be considered a good source of protein. The reason for this is that on an "as fed" basis, 92% of samples contained from 1.6% - 2.7% protein. Therefore corn silage should be grown for its energy yield per acre which will be greater than any other forage crop.

### grass silage

Grass silage in Quebec seems to be a thing of the past. During the past five years there has been an increasing interest in corn silage at the expense of grass silage. A few samples (30) were collected and analyzed. The analysis showed great variation in both dry matter and protein. Dry matter varied from 18.7% - 70.8% while protein varied from 1.4% - 10.0%.

The main reason for the swing away from grass silage has been due to harvesting at too high a moisture content and the subsequent pungent odor of the grass silage.

### changes for the future

It is always dangerous to try to look into the future but since we are con-

tinually being advised about the world of 2000 A.D. then why not think about the future of forage production in Quebec. Forage nutritive value can be improved by the following:

- 1) Earlier harvesting of hay: All hay should be cut not later than the mid-bloom stage. This may mean harvesting less hay and more haylage (D.M. of 45% - 65%) to make sure all hay crops are harvested at optimum maturity. Early cutting of the first crop would facilitate a heavier second cut. The use of hay driers, either cold air or hot air, would enable hay to be made with fewer drying hours, which is so very important early in the season.
- 2) More legumes as forage: Where soil conditions are ideal or can be changed to promote legume production, then legumes should be grown. Hays and haylage high in legumes are definitely higher in protein and are generally higher in energy so therefore should be considered in any hay-pasture mixture to be sown.
- 3) Increased use of corn silage: As the farm units increase in size, automation becomes more important. Roughage in the form of

silage can be handled with labor-saving equipment much more efficiently than hay. As the dairyman becomes more knowledgeable in varieties of corn to plant and the type of equipment necessary to handle this crop he will be able to increase the proportion of energy for milk production from corn. In fact, today some farmers are approaching the point where corn is the only roughage fed. However, it is always dangerous to produce only one forage crop because there is always the chance that there may be a year when that one crop is a failure.

- 4) Forage Testing: It is apparent that the farmer requires an accurate evaluation of the nutritive value at his forages to chart his progress. Laboratory analysis is now available through Feed Testing Services, such as the one initiated this year at Macdonald College.

The ultimate for the dairyman would be to produce enough protein through his hay and haylage; enough energy from his corn silage to meet the needs of his producing herd. The Quebec dairyman who wants to progress will make the necessary changes in his forage program to enable him to survive in the competitive business of dairy farming.

*Representative hay samples require proper sampling equipment.*





# weed control in corn in eastern Canada



*Walker Riley, Extension Specialist in the Department of Agronomy, here reviews and interprets the highlights of the recommendations for chemical weed control in corn for 1968.*

*At the end of each summer weed workers from industry, government, and universities meet under the leadership of the National Weed Committee to pool the results of the season's research in methods of weed control. Their report provides a base for provincial recommendations for weed control for the coming year.*

It is no coincidence that the spectacular upswing in corn production during the past six years in Eastern Canada came with the introduction of extremely efficient and effective new herbicides.

Not only has near-perfect weed control been achieved removing a factor once limiting high yields, but also the labour required has been reduced to a fraction of an hour per acre.

Two key principles stand out. The weeds must be removed early and they must be removed completely. In one trial, weeds allowed to grow for only two weeks after the corn emerged, reduced a 130-bushel yield to 120 bushels. Another week's weed growth reduced the yield still further to 112 bushels. At the same time, the last solitary weed escaping cultivation is the greatest thief. Competing for light, nutrients and moisture, one pigweed per forty inches of row caused a seven-bushel loss. In the same trial a band of weeds, such as the cultivator would leave, reduced the crop by 24%. Somewhere in there is the difference between profit and loss on the crop.

## chemicals need help

With all their spectacular success, chemicals should not be expected to do the job alone. Tried and proven cultural practices are no less important today than a decade ago as a base for successful weed control. Rotations including a sod crop still have their place in reducing the population of annual grass and broadleaf weeds. Cultivators should be standing by to rescue a crop should a chemical treatment fail through a quirk of the weather. Indeed, as we put pressure on one segment of a weed population by a new technique or new chemical, we may be giving advantage to another. Our current concern with annual grasses in corn is an example. Weed control is like trying to keep twelve rabbits in a box with only two hands.

## a choice of chemicals

At least twelve powerful herbicides appear in this year's recommendations for corn. Each is most effective in a given set of conditions. Herbicide "cocktails" are coming into use as their combined effect is worked out by trial and error and by research.

Atrazine still holds its place as the outstanding weed-control chemical for corn in eastern Canada. Following the closely related chemical, Simazine, by a year or two in its development, these two remarkable herbicides opened the new era in corn-growing and gave the first real hope of achieving the goal of a weed-free environment. Both of these triazines work through the root systems, and can therefore be applied to the soil any time before the crop emerges. Since Atrazine is absorbed also through the leaf and translocated in the plant, it can be applied as an alternative or complementary treatment after the corn crop is up. Neither chemical harms corn, even at excessive rates, but destroys a broad range of grass and broadleaf weeds. Both chemicals need moisture to be effective, but Atrazine has some advantage in drier weather. A light harrowing, to incorporate the chemicals in the top layer of soil either before or immediately after planting, increases effectiveness in a dry spring.

Residues have been a problem with the triazines. Both chemicals, Simazine more so than Atrazine, persist in the soil for a varying time, depending on soil and weather. Rates must be kept low (1½ lbs. or less active material) if risk of damage to sensitive crops is to be minimized in the following year. Sugar beets, peas, white beans, and many vegetable crops are particularly sensitive.

Both these chemicals are wettable powders, can cause a high-rate of wear in nylon roller or gear pumps, and require constant mechanical agitation to keep them in suspension in the sprayer tank. Atrazine requires 20-30 gallons water per acre as a carrier. Thirty pounds per square inch is the standard pressure when spraying, but pressures of 60 lbs. or even higher have been used in early post-emergent applications. Where ground is rough, post-emergent treatments, up to the time weeds are 2 inches high, have been more effective than pre-emergent. Higher rates are required on heavy soils than on sandy soils. Atrazine is on the market in 65% and 80% strength. Because of this, many recommendations are made in terms of the active portion per acre. Some, however, specify a certain



strength, and give rates of the commercial product.

A basic recommendation using Atrazine for routine weed control in corn is 1 to 4 lbs. (active) in 15-30 gal. water per acre, applied soon after the corn is planted. Variations of this treatment help to meet specific problems.

### **oil emulsions effective**

Adding certain light mineral oils containing an emulsifying agent to the tank during filling, at the rate of 1½ gallons oil per acre, provides a "rescue" treatment. If weeds including annual grasses (foxtail, old witch grass, barnyard grass, etc.) and quack grass have escaped earlier treatments, the Atrazine-plus-oil treatment usually proves very effective. Annual grasses should be sprayed before they reach the three-leaf stage for best results. Splitting the treatment into two applications increases the effect. Substituting one pound of Atrazine with Simazine is reported to improve crabgrass control. Some reports of mild damage to corn from the oil treatment have come in when sprayed under stress conditions of heat or cold.

### **reducing Atrazine residue**

One way to reduce risk of Atrazine residues to next year's crop is to substitute part or all of the Atrazine with Linuron. Sold under at least two brand names, this chemical, known as a substituted urea available as a wettable powder, is absorbed through both leaves and roots. It kills both germinating and emerged annual broadleaf weeds and grasses. It can be used pre-emergent along with the Atrazine, or sprayed when the corn is 12" to 24" high if nozzles are used to direct the material away from the corn plant. One pound Linuron plus one pound Atrazine has given good results. Used alone, it is not as safe on corn (especially sweet corn) as Atrazine, but it does avoid the residue problem.

### **annual grasses increasing**

Foxtails (*Setaria* spp.) and other annual grasses are among the first weeds to escape the basic Atrazine treatments. Over a period of a few years, serious infestations can build up. Two chemicals, EPTC (Eptam) and a new one in the list for the first time, Sutan, are giving excellent promise of control. Atrazine is usually added to improve the overall weed control. Both these chemicals, Sutan & Eptam, are similar in action, and require careful management. Both form a gas, toxic to germinating seeds and young seed-

lings, as soon as the chemical comes into contact with moist soil. The chemical must therefore be applied to dry soil and thoroughly disked into the soil within ten minutes. Sutan is the safer chemical on corn, especially on light sandy soils, and no delay before planting is required as with Eptam. Both these chemicals give some control of horsetail (*Equisetum arvense*). Two to three pounds per acre is the usual rate, plus 1 lb. Atrazine per acre. An alternative treatment, one and one half to two pounds Atrazine in an oil-water emulsion at the 2-5 grass-leaf stage also gives a good measure of control. However, by that time, much competition damage has already been done.

### **the nutsedge problem**

Yellow nutgrass, or nutsedge (*Cyperus esculentus*) is a serious weed problem in corn on those farms where it has gained a foothold. The underground stems terminate in small brown nut-like tuberous structures which give rise to new plants. To date, no single, simple control measure has been found.

Eptam and Sutan at the higher rates have given fair to good control. Split applications of Atrazine are a possibility; two pounds active material disked, preplant, into the soil, followed by another two pounds when the nutgrass is in the spike stage, has controlled many stands. Cultivation may also be necessary. On the college farm, favoured by ideal moisture conditions (it rained shortly afterwards), excellent control of nutgrass was achieved in 1967 with Atrazine (2½ lbs. active) plus 1½ gallons oil in 30 gallons water applied when the nutgrass was ¾ inch and the corn 4 inches high. The soil was black muck, and it was rolled after planting.

### **quackgrass a perennial problem**

Quackgrass (*Agropyron repens*) continues to take a severe annual toll on many farms. Atrazine does an outstanding job of eradication in the corn crop, but it requires heavy rates and therefore more than one year in corn. Split applications, two pounds on the actively growing quackgrass foliage in the fall or early spring, plowed or disked one to four weeks later, followed by a standard pre-emergent or post-emergent application, are more effective than a single heavy application. Where it is desirable to avoid these heavy rates of Atrazine, Amitrol T, a grass killer, may be used at 2 lbs. active per acre to replace the

first application of Atrazine. Atrazine plus oil may be used as a rescue operation on quackgrass in the corn crop, but again competition damage has been done by that time.

### **cost can be high**

Some of these treatments may run as high as \$15 per acre for materials alone. Ten bushels extra yield, however, will pay the bill, and losses from weeds can be very much higher. However, if low cost is the first consideration, or risk of residues must be avoided, or if the weed problem is limited to easy-to-kill broadleaf annual weeds, then 2,4-D or one of its close chemical cousins, 2,4-DB, MCPA, or MCPB will do a reasonable and economical job of control for one to three dollars per acre. 2,4-D and MCPA may be used as an overall spray until the corn is 6" high, and the two butyric forms, 2,4-DB and MCPB until the corn is a few inches higher. Use drop pipes for later spraying to direct chemical away from the corn foliage.

Specifically, 2, 4-DB will give better control of the harder-to-kill broadleaf perennials, like Canada thistle, sow thistle, field bindweed, wild buckwheat, and smartweed than 2,4-D. Commercial mixtures of these chemicals are also available. Some sweet corn varieties are known to be injured by 2,4-D. None of these last treatments will control grass weeds.

### **cultivation not necessary**

Very few trials have ever shown any advantage for cultivation other than to control weeds. On a few heavy soils, a light cultivation to break the crust has given some increase in yields. On the other hand, once over with a cultivator when the corn is small rarely does any harm if one cannot resist the compulsion to cultivate.

### **zero tillage not proven**

A recent development in corn growing is the attempt to replace the plow with chemicals to destroy the previous crop. Early results are favourable and yields are comparable on lighter soils where fertility is high to begin with. The attraction is in the saving of valuable time in the spring, rather than in reducing costs. The difficulty is in supplying sufficient fertilizer to the crop at root level. Machines are on the market which will plant corn in sod or unploughed stubble.

Atrazine at 2 to 4 lbs. per acre to give continuing vegetation control, together with Paraquat (Gramoxone)



at  $\frac{1}{2}$  to 1 lb. to give a quick burn-off of growing vegetation, will take care of most situations if one wishes to try a portion of his corn acreage. Paraquat is known as a "chemical mower", and becomes inactive immediately on contact with the soil. Zero tillage is a development worth watching, but it is too early to make any recommendations.

Corn has been called a recipe crop. If all the ingredients are there, and mixed according to the recipe, chances of success are high. Weed control, along with an adapted hybrid, early planting, a well-drained soil, insect and disease control, high plant population, sufficient fertility, and a timely harvest are the ingredients for money-making yields.

*The large-capacity silos being built across eastern Canada reflect the high degree of mechanization, including weed control, now possible in the corn crop. This one at Macdonald College holds 800 tons.*



## OMISSION

*The February Issue of the Macdonald Journal contained two major omissions. The Economic Review and Outlook Statement was prepared by Professor David MacFarlane, Professor Cecil Haver and Dr. L. A. Fischer of the Department of Agricultural Economics at Macdonald College.*

*The article on Phosphorous was prepared by Professor Gus MacKenzie of the Department of Soil Science.*



# THE FAMILY FARM

PUBLISHED IN THE INTERESTS OF THE FARMERS OF THE PROVINCE BY  
THE QUEBEC DEPARTMENT OF AGRICULTURE AND COLONIZATION

Compiled by  
Tom Pickup  
Information Service,  
Quebec Department of  
Agriculture and Colonization

Photographs by  
Office du Film du Québec

## honey production in 1967



*John Bergeron of St. Prime, Roberval, examines a hive.*

The Quebec Bureau of Statistics of the Department of Industry and Commerce has published the following figures on honey production in Quebec in 1967 and also in 1966 and 1965:

Year	Beekeepers	Hives	Honey production		Total farm value	
			Per hive	Total	Total	of honey crop
1967	1,657	47,120	65 lb	3,063,000 lb		\$858,000
1966	1,720	43,550	75 lb	3,266,000 lb		\$882,000
1965	1,800	44,300	54 lb	2,392,000 lb		\$646,000

## 181,919 lbs. of margarine seized in four months

The Minister of Agriculture and Colonisation, Mr. Clément Vincent, has revealed that, between August 23rd and December 31st 1967, inspectors of his department confiscated 181,919 pounds of margarine which did not meet legal standards.

Margarine may be retailed in Quebec provided that it satisfies the requirements of the Dairy Products Substitutes Act as regards colour, composition, packing and wrapping.

Samples of each of the confiscated lots were taken by the inspectors and sent to the Institute of Agricultural Technology at Saint-Hyacinthe for

analysis. The confiscated margarine was then distributed to religious institutions.

Mr. Vincent added that legal action is now being taken against 59 of the offenders and that 175 other briefs have been drawn up and are ready to be turned over to the department's legal advisers. He also pointed out that these proceedings are the results of a big campaign to clean up the dairy products market and said that inspectors will deal severely with infringements until manufacturers conform to the provisions of the Dairy Products Substitutes Act.



## advisory committee

On January 31st, Judge Marc Fortin of the Provincial Court presided at the swearing-in of the members of the committee which has been appointed to advise the Quebec Crop Insurance Board. The brief ceremony took place in the Judge's chambers at the Court House in Quebec in the presence of Mr René Bernatchez, MLA for Lotbinière and parliamentary assistant to the Minister of Agriculture, Mr Clément Vincent, who was then in hospital.

The members of the Advisory Committee are as follows: Mr. Jean-Paul Corriveau of Saint-Thomas, Joliette county, who will be its chairman; Mr. Jean-Paul Diné of Chénéville, Papineau county; Mr. Louis-Philippe Rioux of Trois-Pistoles, Rivière-du-Loup; Mr. Paul-André Tardif of Saint-Nicolas, Lévis; Mr. Cyril Dahms of Huntingdon; Mr. Rosaire Tanguay of Saint-Pie, Bagot; Mr. Marcel Bergeron of Saint-Prime, Roberval; Mr. Robert Boulé of Palmarolle, Abitibi-West; Mr. Paul Mailloux, chief inspector of insurance companies for the Department of Finance; Mr. Léon Sylvestre, agronome, assistant to assistant Deputy Minister Lucien Bissonnette of the Department of Agriculture and Colonization; and Mr. Jean-Marc Ducharme, notary, the secretary of the Crop Insurance Board who will also act as secretary to the Advisory Committee.

Speaking on behalf of the Minister, Mr. Bernatchez told the members of this committee that if they considered all their responsibilities carefully they would find that they were based on a single common duty: that of co-operating closely and constantly with the Crop Insurance Board. "That", he said, "is only natural, because the efforts of both the Board and the Advisory Committee are devoted to one and the same cause — the protection and prosperity of Quebec's farming population"

## crop insurance

The number of farmers insuring their crops is gaining sharply each year. In 1965, \$27 million in insurance was carried on wheat, oat, barley, flax, sugar beet, and potato crops by some 13,000 farmers in Manitoba, Saskatchewan, Alberta, and P.E.I. under federal-provincial crop insurance programs. And a recently released report for the 1966-67 fiscal

year by the CDA's Crop Insurance Administration shows that more than 24,000 farmers in the four provinces insured their 1966 crops for a total of \$52 million.

The growth in crop insurance has continued in 1967. While only estimate figures are now available, these indicate that approximately 33,500 farmers took out insurance totaling \$90.5 million on the year's crops.

In addition to those in P.E.I. and three prairie provinces, the number of insured farmers in 1967 included about 1,000 in Ontario and British Columbia where crop insurance programs went into operation that year. The B.C. program covers tree fruits,

while the Ontario program provides insurance for winter wheat, spring grains and, in two test areas, for forage crops.

Total amount of premiums, including the federal government's 25 per cent contribution, was \$4.4 million in 1966 and is estimated at \$7 million for 1967.

In spite of a record crop in 1966 and an average crop in 1967, indemnity payments in 1966 amounted to approximately \$1.3 million or 29 per cent of the premium amount. These payments are expected to amount to slightly more than \$2.5 million for 1967 — about 37 per cent of the premium amount.

## exhibition grants amendment

A recent amendment to Exhibition Grants Regulations should lead to a reduction in the number of small, local agricultural fairs in Canada and to an increase in the number of regional Class B exhibitions which qualify for federal grants, say officers of the CDA's Livestock Division.

There are between 400 and 500 small local fairs with Class C rating in Canada. These do not qualify for federal grants to help meet judges' fees, junior activities, permanent improvements, prize monies, and other expenditures.

Under the amendment designed to encourage mergers among them, two or more Class C fairs may now amalgamate to become a Class B exhibition. To obtain this classification, however, the amalgamating fairs must have offered a combined total of at least \$3,000 in prize money for specified exhibits annually for the previous three years. This annual amount in prizes is a standard requirement for Class B fairs.

Federal assistance to a Class B exhibition includes payment of 50 per cent of the cost (up to a maximum of \$1,800 for the federal share) for permanent improvements and repairs, an annual grant of \$200 for judges' fees, and a grant for 4-H activities of up to \$1,000 annually.

Amalgamation of the local fairs into regional exhibitions and the resulting federal assistance will mean better facilities, more exhibits, and, consequently, better attendance, Livestock Division officers point out.

(From "This Month with CDA")



*A son and a daughter of Mr. E. Dion of Adamsville in Brome County are ready for the show-ring with two of their father's young Holsteins.*



# European red mite

by W. L. Putman

One of the most persistent pests of fruit trees is the European red mite, *Panonychus ulmi* (Koch). It attacks apple, pear, plum, peach, and sour cherry. The loss of chlorophyll from injured leaves may greatly reduce the size and quality of the crop and the vigor of the trees. A few hundred mites in the spring can multiply to millions in two or three months in hot, dry weather such as that prevailing in 1966. Also, the mite soon develops resistance to acaricides.

Yet to a great extent the mite problem in Ontario orchards is recent. Before World War II only plums, and occasionally apples, required regular spray applications to control it.

As soon as the general increase of the mite in peach orchards became evident in the late forties, investigators at the CDA Research Station, Vineland Station, Ont., began to study the causes. It was hoped that the knowledge gained could be used to eliminate the problem or develop better control measures.

The first general increase of the European red mite followed the introduction of DDT. This suggested that DDT stimulated the mite's rate of increase, either directly or through some effect on the host plant. However, our investigations at Vineland Station failed to reveal any effects of this kind. Also, other pesticides such as parathion and carbaryl with quite different chemical composition and mode of action promote mite outbreaks.

A number of investigators in Canada, the United States and Europe have shown that plant-feeding mites are much affected by the nutrient supplied to the host plant. The mites have greatest fecundity on plants fed at rather high levels of nutrients in proper balance. The greater attention given to orchard soil fertility in recent years might therefore have increased the intensity of European red mite attack. However, it was demonstrated at Vineland Station that the mite could multiply at a high rate even on long-neglected, unfertilized peach trees if its predators were excluded by cages or killed by DDT sprays.

It was therefore concluded, in agreement with most other workers, that modern, organic pesticides have brought about the present mite problem largely through the destruction of the predators. These predators have been studied intensively for several years to obtain clues on their role in the natural control of the mite.

More than forty species of insects, spiders, and mites prey on the European red mite in peach orchards of the Niagara district but only a few are really effective. A phytoseiid mite, *Typhlodromus caudiglans* Schuster, which attacks young red mites, is generally the most important. Aided by various minor predators, especially larvae of green lacewing flies, it is usually able to hold the red mite below injurious numbers. It can persist on the trees through periods when the red mite is scarce because it can survive on other prey such as the peach silver mite or even on vegetable materials like pollen. However, only small numbers of this predator usually survive the winter, and later in the season some unknown factors prevent its numbers from exceeding certain upper limits even when prey is plentiful. If particularly favorable conditions once allow the red mite to become abundant the phytoseiid consequently cannot increase to the numbers necessary to bring its prey under control.

Under these circumstances the European red mite is attacked by other predators which require higher prey densities for reproduction. The predacious thrips *Haplothrips faurei* Hood, which feeds largely on mite eggs gradually increase along with the red mite, and after the active stages of the latter have undergone their usual decline in late summer both immature and adult thrips continue to attack the winter eggs of the mite until late fall. A very small black lady beetle, *Stethorus punctillum* Weise, also often becomes abundant on heavy infestations of the mite. Its larvae and adults prey on all stages of the mite and after these have declined on the leaves the adult beetles attack the winter eggs on the twigs. The thrips and lady beetle together can destroy most of the winter eggs; by the following spring the mite population is brought down to its usual low level where mortalities from the phytoseiids and their allies can be significant. Two years are sometimes required to reduce the mite to this level when the infestation is very intense and the predators are fewer.

In some years an abnormal condition has appeared in heavy infesta-

tions of the European red mite in late summer. Many mites fail to mature, and those that do so soon die, often without laying any eggs. The symptoms somewhat resemble those due to viruses infecting the European red mite and the citrus red mite in California, but the infectious nature of the condition has not yet been proved. Whatever its cause, it can quickly reduce the mite's numbers, but usually only in late summer after the mites have severely injured the foliage. It can, however, greatly reduce the numbers of winter eggs which initiate the next year's infection.

Despite the activities of the predators they destroy fewer mites than do abiotic agencies. Even where predators are very few, as in heavily sprayed orchards, seldom more than half, and often considerably fewer, of the eggs ever produce adults. This mortality is likely caused by physical factors — rain, wind, and cold — whose effects are still being investigated. It is possible that the numbers destroyed by predators merely tip the balance and decide whether the mite's population density will increase or decrease.

Peaches cannot be economically produced in Ontario without insecticidal treatments against the Oriental fruit moth; all insecticides now known to control it are very toxic to the predators. European red mite reductions through predator action are therefore practical only if a selective insecticide, toxic only to the moth, is discovered or if some radically different method of control is developed.

(From "Canada Agriculture")

## purebred sales complaints

Complaints in connection with sales of purebred livestock claimed by the sellers to be properly registered are being frequently received by the Canada Department of Agriculture.

Dr. Fred Leslie, Chief Registration Officer of the Livestock Division, says that people should not buy animals as registered purebreds without first checking the registration certificate against the proposed purchase. He adds that there are 35 active breed associations which can help prospective buyers. Most of the information on registrations is also available at the Canadian Live Stock Records office in Ottawa.

(From "This Month with CDA")



## Edward Johann's barn



*A well-built barn that harmonizes with the beauty of the landscape on the farm of Edward Johann near Dixville, Stanstead.*

## cattle contest

The great popularity of the market lamb and beef cattle competition which has been an annual event at the Salon of Agriculture in Montreal is shown by the large number of entries. In 1968, 73 young people (45 boys and 28 girls between 14 and 20 years of age, sons and daughters of farmers who raise beef cattle or market lambs) entered the contest. Judging by the prices at which the winning animals have been sold in recent years, the owners reap a small fortune at the auction sale following the contest and this makes for keen competition in the show-ring.

The aim of the contest is to encourage the rearing of beef cattle and market lambs in areas where it can be profitable. The rules are as follows. Competitors must be at least 14 but

not over 20 years of age, and reside on their parents' farm on which there is a herd of at least 25 beef cows or a flock of 50 or more ewes. Each competitor may show one steer or three lambs raised on his parents' farm or bought in Quebec before the first of October 1967 (the closing date for entries).

The contest is made possible through the financial assistance of the Quebec Department of Agriculture and Colonization which pays all of the competitor's expenses, including the cost of a special costume for the event; transportation, food and lodging for the entrant and livestock; veterinary expenses, and the counselling and assistance of agricultural advisers.

Apart from their main object in

promoting the raising of this type of livestock, these contests have had many other beneficial results, chiefly in Northwest Quebec where about a hundred farmers have formed a syndicate that has organized an annual auction sale at which some 700 animals a year have been sold during the past two years.

The contests are also an excellent opportunity for the entrants to gain experience in livestock showing and judging. Showmanship is important since the entrant may sometimes sway the judge's decision in his favour — not from any want of impartiality on the latter's part but because, when he has to choose between two animals having the same score, the judge will decide on the basis of the way in which they were shown.



# aid for the transport of livestock for slaughter

## purpose

The Department of Agriculture and Colonization has decided to change the conditions of its assistance for the transport of livestock from remote regions to abattoirs in the Province which are authorized to use the "Canada approved" or "Quebec approved" stamp. The changes are designed to give farmers a wider choice of markets and to stimulate local trade.

## zones

For the purpose of this subsidy, the outlying regions are divided into four zones, each made up of a number of electoral districts as follows:

- Zone 1: the counties of Charlevoix, Compton, Gatineau, Kamouraska, Labelle, L'Islet, Papi-neau, Pontiac, and Stanstead.
- Zone 2: the counties of Rivière-du-Loup and Témiscouata.
- Zone 3: the counties of Abitibi East, Abitibi West, Bonaventure, Duplessis, Gaspé North, Gaspé South, Magdalen Islands, Rouyn-Noranda, Saguenay and Témiscamingue.
- Zone 4: the counties of Matane, Matapédia and Rimouski.

## subsidization rates per head

- A.- On animals sold to a "Canada approved" or "Quebec approved" inspected abattoir outside their zone of origin:
- B.- On animals sold to any abattoir inside their zone of origin which is authorized to use the "Quebec approved" or "Canada approved"

	Zone 1	Zone 2	Zone 3	Zone 4
Cattle	\$3.00	\$5.00	\$8.00	\$6.00
Calves	.50	1.00	2.50	1.50
Sheep and lambs	.50	.75	1.50	1.00
Pigs	.50	1.00	2.50	1.50

stamp.

In this case, subsidization rates will be 60% of those listed above and will depend on which zone the animal was raised in.

## method of payment

1. Subsidies will be paid directly to the farmers by the Department of Agriculture and Colonization on the basis of invoices, bills, and other relevant documents approved by the Department.
2. The farmer's claim must be submitted to the office of his local agronome together with documentary proof of the sale of his animals to an abattoir of the above-mentioned kind.
3. The claim must be submitted within two months of the sale of the animal(s) to the abattoir.
4. Abattoirs must keep their slips, statements, records (or other documents deemed necessary concerning their purchases of animals) available for the Department's inspector.
5. Payment of this subsidy will be made twice a year — on the 15th of March and the 15th of September.
6. A farmer may claim this subsidy only on animals born on his farm or fattened on it during a period of at least thirty days.
7. These conditions replace the former ones and are effective from the 15th of February 1968.
8. This assistance policy will remain in force until further notice.

The Deputy Minister of Agriculture and Colonization  
ROMEO LALANDE  
QUEBEC, February 5th, 1968.

## Andre Bellerose sworn in

On January 19th, Provincial Court judge Marc Fortin presided at the swearing-in of Mr. André Bellerose as a controller of the Quebec Crop Insurance Board on Thursday. Mr. Bellerose a 37-year-old farmer of Saint-Camille in Wolfe County, is the farmers' representative on the Board. The president of the Board is Mr. Roméo Martin and the other members are Mr. Jean Blanchet, vice-president, J. Maurice Massicotte, and Roland Bergeron.

The brief swearing-in ceremony took place in the judge's chambers in the presence of the Hon. Clément Vincent, Minister of Agriculture and Colonization, who is the minister responsible for applying the Crop Insurance Act, and of Mr. René Lavoie, MLA for Wolfe.

Mr. Bellerose, who operates a dairy farm in the parish of Saint-Camille, is a member of his parish school board, vice-president of the parish fire-insurance group, secretary of the local

branch of the U.C.C., vice-president of the Sherbrooke division of the UCC, and member of the Granby and Wotton cooperatives. For a number of years he has been giving continuation courses in cooperation to the Eastern Townships section of the adult education programme.

Following his elementary schooling at Saint-Camille, Mr. Bellerose took the intermediate course in agriculture at the Noé-Ponton school in Sherbrooke and, later, a Department of Agriculture and Colonization refresher course in agriculture. He is married and has three children.



## diploma-agriculture graduation March 1968

The following students completed the requirements for the Diploma-Agriculture course.

BLAIR, Brodie Clarence, Franklin Centre, P.Q. COCHRANE, William Thomas, St. Andre Avellin, P.Q. CROSSFIELD, Wayne Stanley, East Farnham, P.Q. DAVIES, Walter Terrance, Shawville, P.Q. DUCK-WORTH, John William, Ste. Anne de Bellevue, P.Q. GAINERY, Richard Henri, Hull, P.Q. GIBB, John W., Abbotsford, P.Q. GRIFFIN, Steven Joseph Gregory, Calumet Island, P.Q. JOHNSTON, William Lisle, Kingsbury, P.Q. JUDD, Christopher Irvine Lewis, Shawville, P.Q. MCCUTCHEON, Grant Brian, Granby, P.Q. MCFARLANE, Kenneth Robert, Howick, P.Q. REMBER, John Robert, Ormstown, P.Q. PERKINS, Stanley Reid, Mansonville, P.Q. RICHARDSON, Richard Gary, Shawville, P.Q. VEILLON, Louis Pierre, Cowansville, P.Q. WOLKOW, Wayne, Lachine, P.Q.

## innovation in education

"Innovation in Teacher Education" was the theme of a one-day conference held at Macdonald College on March 16th. The keynote speaker was Dr. William Ward, Director, Division of Development of the Northwest Regional Educational Laboratories, Portland, Oregon. His topic, "The Teaching Internship in Oregon" was particularly relevant in view of the current Macdonald Project MEET (McGill Elementary Education Teaching Teams). Details of MEET will form the focus for an article by Professor Myer Horowitz in next month's Journal.

## official opening of farm machinery show

At the official opening of the National Salon of Farm Machinery and Poultry Industries, at Place Bonaventure, Macdonald College, in collaboration with the Bank of Montreal and I.B.M., presented "Macdonald Princess Oleana" from the Macdonald College farm. Above, visiting the exhibit, are shown MM. Romeo Lalonde, Deputy Minister of Agriculture and Colonisation for Quebec and Dr. Rolland Poirier, Deputy Minister of Federal Agriculture; between them is "Macdonald Princess Oleana"



## mention of the winners:



At the distribution of awards to the winners of the contest "New Items of Farm Equipment" at the National Salon of Farm Machinery and of Poultry Industries, which was held at Place Bonaventure, Lord International Cie was the principal winner for a new machine "Vandenede Drain Master". Above from left to right Mr. Rene Lord, president of Lord International Cie, and Hon. J. P. Beaudry, Minister of Industry and Commerce.

(more on page 20)



# Women's Institutes

## NEWS AND VIEWS OF THE QUEBEC WOMEN'S INSTITUTES INC.

Edited by  
Viola Moranville,  
Publicity Convenor  
Q.W.I.

*ARGENTEUIL: Arundel:* members demonstrated a reducing exercise as their roll call. They had as a guest a friend from Alberta. Two Christmas baskets containing food and gifts were delivered to local families. *Brownsburg:* Roll call was 'name an advantage or disadvantage that a girl of today has in comparison with the days of her Mother', knitted articles went to a Home, a Christmas gift was sent to a patient in the Douglas Hospital and a donation was sent to the Grace Dart Hospital. *Jerusalem-Bethany* answered their roll call by naming a well known Doctor and his field of work, Mrs. D. Rogers, Convenor of Welfare and Health read an interesting article entitled 'The Cruellest Swindle in Medical Cures' which was about Arthritis victims seeking relief from their pain. *Lachute's* roll call was answered by naming a controversial topic of which you would like to hear more and the answers were most explicit (*i.e.*) information on the new system of Education, Medicare, also Medicare's connection with other medical Insurances. The Branch is placing a copy of "The Quebec Mosaic" in our W.I. Library. A round table discussion was conducted by Mrs. George McGibbon with many interesting topics handled. One was "Is the Department of Indian Affairs doing enough for our Canadian Indians?" Also discussed the resolution being prepared which will ask for stiffer laws against TRESPASSING, especially on farm property. *Upper Lachute & East End:* had written suggestions for next year's program as their roll call. Copies of the Quebec Mosaic and a completed afghan for the Red Cross were displayed. All members agreed with the resolution being prepared against Trespassers. The Program and Nominating Committees were chosen. The Handicraft list for the Fair was discussed, and a get-well card was signed for a hospitalized member. Mrs. K. Hanly, Convenor of Home Economics, read a paper on Electric Dishwashers which told of their many uses other than washing dishes. Mrs. S. Hume, Convenor of Welfare and Health, had as her guest Mrs. R. Silversen R.N. who spoke on "Diabetes" which was followed by a most informative question and answer period.

*ARGENTEUIL:* (February meetings). *Arundel:* held a 'Sports Night' with

twenty members and two guests taking part in ski-doo-ing, skating and card playing. The roll call was answered by singing a song with 'love' in it.

*Brownsburg:* made plans for the supper they hold before their Annual Meeting in March; cookies will be sent to Ste. Anne's Military Hospital for Valentine's Day. Mrs. Grace Morrow gave a demonstration on Children's Parties with ideas on decorations, food, gift wrapping and games. *Dalesville-Louisa:* discussed Fair Work projects, and chose their Nominating Committee. A drawing on silverware which was donated by a member proved most interesting and Pennies for Friendship were collected. *Frontier:* roll call was answered by showing articles made from a yard of material. These were judged by Mrs. G. Miner, then sold to help the Funds. Members also brought in samples of darning and mending which were judged by Mrs. F. McGibbon. Mrs. Charles Hall, County President paid her annual visit to the Branch. *Jerusalem-Bethany:* answered their roll call by telling "what I serve to unexpected guests." A basket of Get-well wishes and treats were made up and sent to a member who is unable to get out to meetings this winter. Mrs. Clifford White, Assistant Kindergarten teacher, spoke on the activities and curriculum in Kindergarten at Lachute High School, showing some of the work done by the Children. *Lachute:* Convenor of Home Economic, Mrs. George Muir, had as her guest Mrs. Lloyd Hume, who gave a demonstration on cake decorating, starting with a plain white cake, proceeded to ice it into a beautiful birthday cake. Candles were added and a guest who was celebrating her birthday blew out the candles while the members sang the Birthday Song. Mrs. Muir then served tea and this decorated cake was sampled, after which a successful 'bake-sale' was held. *Pioneer:* heard a report of the party given at Christmas time for 40 retarded children at the 'Home' in St. Andrews. A vote of thanks was given to Mrs. R. Hyde and Mrs. M. Bryson who ably made the preparations for this party. Sick and Shut-ins are being visited or sent cards. A 'Bring and Buy' Sale proved quite profitable and a lot of amusement. Mrs. Albert Thompson acted as auctioneer. *Upper Lachute & East End:* made plans for quilting 'Bees' at which two quilts are to be quilted. It was decided that the Branch would have a 'kitchen and dining area' as their project at the Spring Fair. A card was signed for a member who has been in hospital. Guests for the evening were the members husbands:



cards were enjoyed and many were lucky recipients of prizes at the close. All Branches in the County reported holding serious discussions concerning the Quebec Government's proposed Tax revision. All members have agreed that a strong protest should be sent to the Government.

**BROME — Abercorn:** Roll Call name your birth month, jewel and flower. Program was to dress to represent a song with first and second prizes given; this was followed by a 'white elephant' sale. **Austin:** Sponsored a Community Christmas Party, gifts for the aged and shut-ins were distributed. The Play for the Annual Convention has been chosen. **Sutton:** We have sent a strong letter of protest to our M.P. and to Daniel Johnson protesting the proposed 7% sales tax on all goods, including food and children's clothing. **South Bolton:** Roll Call was name your favorite author or the book most enjoyed. Committees chosen for programming and election of officers for coming year. Report read on N.C.W.S. from the Federated News. A contest by the librarian was enjoyed by all with prizes won by Mrs. Ruth Cooles and Mrs. Doris Cameron. **Knowlton Landing:** Members were requested to bring in suggestions for next year's programs. New Year's Greeting were sent to sister-groups and to County President who is in Florida. Pennies for Friendship were sent in. A fun party was held at Christmas for the children and held in the Club House. The Quebec Mosaic was discussed. A copy of the B.N.A. Act was received and will be read by members and discussed at a later date.

#### CHATEAUGUAY-HUNTINGDON

**Dewittville:** Mrs. Jacques Leger showed slides of her recent trip through ITALY, AUSTRIA and ENGLAND. Mrs. Peggy McCaig spoke about the Canadian Department of Agriculture which is 100 years old this year, and about the many Acts passed during these 100 years. Members are collecting Kraft labels to help finance our Olympic Team. A most successful Winter Carnival was held. **Ormstown:** Dr. Johnson, of the Barrie Hospital in Ormstown spoke on ULCERS, followed by a interesting discussion on the subject. Members gave Valentines to their right-hand neighbors.

**COMPTON — Cookshire:** Our Agriculture Convenor gave tips on daily health exercises and old-fashioned health remedies. Seeds were given out from the Maple Leaf Tree that inspired Muir's 'Maple Leaf Forever'. This poem was read at this time. The Public Health Convenor spoke on the integration of the Indians in Ontario and the work of the Toronto Indian

Centre in disposing of their Handicrafts. The Publicity Convenor read from the U.N. Magazine and also Federated News about Pauline Johnson's Home. Projects were — knitted squares brought in to make a quilt for an Old Folks Home and two gifts brought in to be given to sick and shut-ins for St. Valentines Day. **East Angus:** — Roll Cal — something I liked about Centennial Year. Christmas baskets were decorated, flowers and gifts were given to 19 friends at Christmas. There was an exchange of gifts among members and a caroling was enjoyed. Donations were given to the Service Fund and for Prizes in Health at the School. Some of the activities were — an article read on Vincent Massey; several books or copies of 'The Quebec Mosaic' were sold; the Federated News was given out and an article heard on 'Pay for being Tall'. **East Clifton:** — Speakers were heard on the following — 'Teachers on Modern Education'; 'How Young France Looks at Canada'; 'Reading on Indian Conference,' these were held at Bishops University, Lennoxville, Quebec. A display of cookies with the recipes (these were sold); a penny auction was held with proceeds going for gifts and cards fund. A discussion on Medicare and Agricultural Prices. **Scotstown:** — Heard an interesting address by a primary teacher on the non-grading in the schools. Several Quebec Mosaic's were sold and more ordered also an order placed for the F.W.I.C.'s The Heritage of Canadian Handicrafts. Money handed in from sale of spoons; Pennies for Friendship given, also annual reports from the Convenors were given.

**GASPE - Douglstown:** — Roll call exchange of Christmas gift. Each member brought a record of Christmas Carols and these were played during the meeting. Little Miss May Walsh from this area won the Cup at the Children's Fair. A Bingo party was held for the children and was most successful. **Gaspe:** — roll call and exchange of gifts. Each member brought a gift for an elderly patient in the Sanatorium — twenty-five gifts were taken to the "San" and it was a joy to see the excitement as they have no one to write or to visit them. Each member brought a guest to the Christmas meeting — there was a quiz game "Guess What I am" after which refreshments were served — punch, Christmas Cake and all. **Wakeham:** — Roll Call — 'What household chore would we like our husbands to do'. An interesting Christmas party was held and each member named an important event in 1967. Donation to UNICEF; N.C.W.I.; to Cecil Butters

Home for Retarded Children and gave gifts to elderly people in the Parish. **York:** Roll Call-Donate a gift for a child in Hospital. The President read a letter of thanks from the Unitarian Committee for a donation of 98 pounds of used clothing. A donation was given towards a Christmas tree for the mental patients in a local Hospital. Christmas gifts were also sent to local shut-ins and cards to all former members who have moved away. The entertainment committee had very interesting contests and Santa and his helper called and distributed gifts from the tree, by special request they stayed and had refreshments with us. Five guests enjoyed this meeting. (Jan.) **GASPE COUNTY for FEB. Gaspe:** — Roll Call — a mystery parcel — this was a small meeting due to the weather — only eight members there. Education Convenor read an article on Grade I using typewriters; Publicity Convenor gave an article on 'A nurse gains "no-how" for Nigeria'. Chairman for slate of officers appointed. Pennies for Friendship were not forgotten. **Sandy Beach:** — Pennies for Friendship and Talent Money turned in. Program for the next year was drawn up—copies to be typed by the secretary; ground work laid for the play to be presented at a later date. **York:** Roll call — exchange of recipes for squares and what do you look for first in your daily newspaper. There was a sale of miscellaneous articles; these were not to be sold for more than 25¢ each. The President read a letter concerning the raising of money for N.C.W.I.; Publicity reported on Federal Constitutional Conference at Ottawa; also reminded us that there are 10 Liberal Contestants for seats of Prime Minister to date with a possibility of two more candidates. Citizenship Convenor reported on a discussion between Mr. Johnson and Mr. Trudeau. Welfare and Health Convenor reported on Changing of Divorce Laws and the Medicare System. Contests on 'Flowers' and 'Every so often'. (I wonder what kind of a contest that last one could be?). **JACQUES-CARTIER — Ste Annes:** Two interesting films were shown — one on 'Maple Sugar' and the other 'Dynamic Careers in Agriculture'. Also, at this meeting the bi-lingual version of 'O Canada' was introduced. **MEGANTIC — Inverness:** Roll call was answered by an exchange of recipes and a sample with which to treat the members. Valentines to be sent to sick or shut-ins and senior Citizens. **Kinnear's Mills:** Roll call — each member gave her favorite recipe by memory. The Senior Citizens Home was showered with jams and jellies.



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**MISSISQUOI — Cowansville:** Roll call answered by describing a current event, most of which provoked lively discussions; heard a talk on Human Rights and the current Constitution Conference; ordered several copies of "Quebec Mosaic". **Fordyce:** — invited all Branches of the County to a meeting held in the Cultural Centre. The guest speaker, Miss Doris Clark of CJAD, Montreal, described the workings of a radio station, and answered many questions about radio personalities. **Stanbridge East:** considered various suggestions for raising money.

**PONTIAC - Clarendon:** Donations of face cloths and pot-holders to Pontiac Community Hospital. A nurse addressed the group at this meeting and her subject was "THERAPY".

**Bristol:** How to live to be one hundred years old - the secret? **WALK.** Home Economics Convenor gave an interesting paper on "Life in the Kitchen". A word contest was held.

**Fort Coulonge:** Articles were given from several medical magazines. A question and answer period was held under the direction of Dr. Rabb. A contest held on scrambled musical names. A member gave several household hints and another gave several current events. The roll call was pay double your shoe size. Donations of tea towels for the Pontiac Community Hospital. **Quyon:** Mr. McKeachie gave a travelogue (with slide) of his recent trip to Scotland. **Shawville:** Interesting contest of Telephone Bridge. Donation made to the Cup Milk Fund.

**QUEBEC - Valcartier:** Reading of a part of the Canadian Constitution followed by a short discussion. Contest of humorous "social news" made up by members about each other. Donations given to each of four local Cemetery Funds.

**RICHMOND - Cleveland:** Answered roll call by telling of a current event. Held a contest on 'Letter Sayings' also a contest on Valentine cup-cakes. All members are working on applique quilt for inter-branch competition.

**Gore:** has taken membership in C.A.C. for Home Economic Convenor. Outline for the program for coming year was handed in. Each member brought six cookies with the recipe. Cookies were sent to the Wales Home after being judged, with the prize going to Mrs. Fallora. A Baby Book and a silver collection given to an expectant Mother. The Cleveland branch were guests. **Melbourne Ridge:** had a demonstration on Liquid Embroidery by Mrs. Harold Blake. **Richmond Hill:** discussed programs for the coming year. Held a rummage sale at the meeting. **Richmond Young**

**Women:** gave a donation to the St. Francis High School for hot lunches. **Spooner Pond:** Roll call - bring a loaf of bread (yeast or fancy Bread) for sales table. Donation given to Save the Children Fund. Study to be made of the B.N.A. Act. Heard reading by the Convenor of Education on the particular maple tree whose leaves inspired Alex Muir to write "The Maple Leaf Forever". This tree is now 106 years old. A contest on buttonhole making was interesting. Mrs. E. Lancaster winning. Members took blocks to applique for quilt in the inter branch competition. Pennies for Friendship were not forgotten nor was the Birthday money. The bread brought in for roll call was sold.

**SHERBROOKE - Ascot:** reports Mrs. Devany read of a young girl who was responsible for over one hundred people pledging their eyes to the eye bank. Two contests were held — brown sugar candy and identifying the crests of provinces and territories. Plans were made to bring the history of Ascot up to date as it has been twenty years since it was printed. **Belvedere** reports roll call — exchange of comic Valentines. The Program was in charge of Welfare and Health Convenor who supervised a game contest with prizes. Following the business meeting, families and friends joined the members in a pot luck supper followed by a social evening. Donations were made to the Lennoxville 4H Club, to The Canadian Save the Children Fund. Plans were completed to give sunshine baskets to two families who were having troubles of sickness and an accident. **Milby:** held a discussion about prizes for Public Speaking at School Fairs. Roll call — exchange of Valentines. Each member had a topic for a two minute speech. Publicity had a quiz on name the 20 Governor Generals of Canada. There were three prizes given — going to Mrs. Robert Sutor, Mrs. Olive Painter and Mrs. Dorothy Green. 12 Christmas Stockings made and filled and sent away. Lovely Valentine cake made and decorated by Mrs. William Sutor centered the tea table.

**Lennoxville:** reports articles read and a discussion concerning the reforestation in this area — health hints also read. An interesting quiz on the Q. W. I. was held. Donation of a gift to a local family who had lost their home by fire. **Brompton Road:** held a card party. Welcomed a member who had been spending some time in Arizona. Valentine cards sent to sick and shut-ins.

**STANSTEAD - Beebe:** Donation was voted to the Beebe School Cafeteria to help provide meals for the children of two needy families — clothing is



also to be provided. Many thank-you's received from recipients of Christmas Cheer baskets. Roll call name a drug brought on interesting discussions on the use of many of the drugs, their benefits and otherwise. Card parties are being held in homes of the members to help swell the funds. A plant was given to Mrs. George House who recently celebrated her 90th birthday. Mrs. House was one of Beebe's charter members. Members brought in food articles for children in a needy family; two bereaved families were remembered with flowers. This was a supper meeting held at the home of Mrs. Oscar Reeves with assisting hostesses. *Halley Center:* A successful white elephant sale was held and Holiday Plates well filled were handed in. *Stanstead North:* Roll call — a valentine rhyme. The program for the coming year was presented by Mrs. Edgar Hill. Mrs. Douglas Johnston, Convenor of Agriculture, read an article on 'Milk Substitute' and Mrs. Osborne, Convenor of Citizenship gave an article on 'The Young Canadians as Catalysts.' Several orders were taken for the "Confederated News" by Mrs. G. Hatch.

*VAUDREUIL - Harwood:* Harwood enjoyed having Miss Gail McCune, on the staff of the new Dorion School, present at our meeting. She told us about our very modern school, mentioning the excellent library, and explaining some of the new teaching aids in use. Miss McCune was a winner of one of the bursaries while attending Macdonald High School. This meeting was under the Convenorship of Mrs. Kinch. A sum of money was voted for the purchase of materials to be used to make Christmas Stockings. Six members visited the patient in the mental ward of Ste. Annes Veteran's hospital, taking along candy, cigarettes, playing cards, magazines and a large quantity of cookies. Knitting and sewing layettes for the Unitarian Service Committee are being continued.

### send pictures

Please send in pictures of your various activities — but — only the black and white prints are useable for this good Macdonald Journal, so continue to write up whatever you are doing and send along with those pictures. Thank you for all of your cooperation.  
Vi. Moranville  
Publicity Convenor.

## Sandy Beach flag-raising



*Archdeacon John Comfort, dedicating the flags with J. R. Keays, M.P., raising them, and Mayor O'Brien and W.I. members looking on.*

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## **scholarship winner**



**SHARON GRETA PETTS**

The third annual undergraduate dietetics scholarship from the Economics Laboratory (Canada) Ltd., has been won by Sharon Greta Petts of Macdonald College of McGill University.

The winner, selected by the Awards Committee of the Canadian Dietetic Association, is chosen on the basis of academic ability, professional potential, references, and personal qualities.

Miss Petts, a native of Sherbrooke, Quebec, was chosen from among 24 senior students from 10 Canadian universities. She has been publicity director of the Winter Carnival at Macdonald and enjoys swimming, volleyball and badminton.

## **school of food science**

At the meeting of the McGill Senate on September 14, 1967, approval was given to change the name of the School of Household Science to the School of Food Science. The decision on the part of the School and the Faculty to recommend this change was arrived at as a result of considerable soul searching on the part of all concerned. Household Science as a name has been in use since the School was established in 1907. The purpose of the School was to give training to young women which, in the words of the First College Announcement, would make for "the improvement and greater enjoyment of home life".

During the sixty years which have passed since the founding of the College, the curriculum gradually evolved from one year, to two years and four years of study. Since 1966 students enrolling in the Faculty of Agriculture from Grade XI in the Quebec schools require five years to graduate. As an integral part of the Faculty of Agriculture the School of Household Science decided to follow the curriculum pattern of the Faculty as closely as possible.

From the beginning of the century there has been a gradual evolution, also, in our society where students find employment. Particularly significant is the emergence of dietetics as a full-fledged para-medical profession and a recognized public service, with salaries in keeping with those paid to graduates of other Faculties.

Preparing Home Economics teachers for positions in the Quebec schools has been the responsibility of the School of Household Science since the beginning. In 1966 another major step was taken when this responsibility was transferred to the Faculty of Education, which now offers a Bachelor of Education degree in Home Economics. However, the School of Food Science will provide all the Home Economics courses which are included in the curriculum for the new degree.

There were a number of reasons why changes were made in the curriculum and the name of the School. An important one was to open the door for the enrolment of men, particularly in dietetics. The university of Montreal has graduated a number of men in dietetics and there are enough opportunities for both men and women in this profession and in positions in food service management to absorb any number of graduates in the years to come. Also, with the increased technical knowledge required in the handling, storing and manufacturing of food products, the graduate in food management and dietetics can serve to bridge the gap between technical personnel and the scientists, such as chemists and bacteriologists, employed by the food industries. There is room on the team for someone with a background knowledge of the sciences and a detailed knowledge of food handling and preparation, who can play a role in product development and consumer relations. We hope that the graduates of the five year degree course in food science will be able to meet this challenge. We will continue, also, to prepare graduates for important and expand-

ing roles in the para-medical areas of dietetics and public health nutrition.

At the same time, we have not abandoned clothing and textiles or the other areas specifically related to the teaching of Home Economics in the schools. In the area of textiles alone, we hope to be able to develop a program which will be useful for those seeking a background for teaching in vocational training schools, in addition to continuing our work in advanced clothing.

Because education is always an on-going process, further changes in the curriculum are anticipated in the future. These will be precipitated when CEGEPS commence to operate in the English-speaking school system of the Province. Although the name has changed and the curriculum is undergoing revision, the aim of the School remains the same, that is to develop students who, on graduation, will serve the needs of the home and the family in the community, in schools, hospitals and industry.

## **a reader writes**

*Dear Sir,*

*When I read the Macdonald Journal I wonder if some of your readers, when they visit Holland, might be interested in visiting some farms, bulbfields, vegetable gardens or orchards.*

*I live in a rural area between Medemblik and Hoorn, both ancient small cities, with a harbour for sailing-yachts.*

*There are many farms in this area with pedigree herds. As I like foreign people I have opened my house for bed and breakfast for 9 guilders a day; in case meals are wanted I will supply them. If somebody is interested I can introduce him to farms, orchards, etc., and have him meet the owners personally; the personal touch makes a visit more interesting.*

*Twisk is not far from the big dijk to Germany, about 30 miles from Amsterdam, and 10 miles from Alkmaar with the famous cheese market.*

*If one of your readers is interested I surely will help to make his stay in Holland a happy one.*

*Thanking you in advance,*

*Yours faithfully,  
Mrs. D. Spaander,  
Twisk k161  
Noord-Holland,  
The Netherlands.*